

Original Correspondence.

THE MINING MARKET, AND ITS FLUCTUATIONS.

SIR.—With an overflow of money in the market, how is it that mining stocks are so much neglected? This is a question of peculiar interest to the market dealers at the present time. It appears to me, as a mere observer of passing events, that there is an entire absence of anything like union in the markets for mining property; and the old saying may be verified, that a "house divided against itself cannot stand." A good mine is not only a good thing for the owners of it, but for the market people also; it causes the public to invest; it causes a large increase of general business, and promotes attention to other mines. A man who makes a good hit is always ready to seek for another; and it is a well known maxim, that we all buy in a *rising* market, but shun it when *falling*. The public were never better disposed towards good mining investments than now. How is it, then, that business is so dull? The answer, I think is clear,—*the want of a more united market*. As the market now is, investors are afraid to buy shares, because the chances are that the next day they will find them quoted lower in price; and they cannot understand the violent fluctuations, which a scrutinising examination would show to be the effect of jobbing transactions, or the enmity of different parties against different mines. This sort of thing has been evidenced in East Caradon, and it pervades more or less all the mines in the Share List, but with more force as regards those of an entirely speculative character.

With a united market, and a desire manifested in it to uphold prices, rather than to unwarrantably depress them, there would be an active and better supported business.

VERB. SAP.

THE CORNISH SYSTEM OF MINING.

SIR.—The late discussions on the Cornish mode of "raising" ores and ladder climbing, in your valuable Journal, have caused much attention amongst mining capitalists. Every visitor to the mines of Devon and Cornwall, who is accustomed to the ordinary method of raising and conveying heavy materials, cannot fail to be struck with the absence of those engineering arrangements which are a matter of course, not only at all the coal and iron mines of the North, but even in this neighbourhood, Bedminster, Ashton, &c., which are comparatively near to Cornwall. Cornish miners may see even in this district hundreds of men going down and coming up daily in cages, with wire-rope, without accident, and the coal and ironstone raised from the depth of about 110 fms., and upwards, at a "raising" cost not exceeding 4d. per ton.

Some of your correspondents have attempted to make an apology for the defective system by asserting that a ton of tinstuff is very different to a ton of coal or ironstuff. I do not understand why a ton of tin or copper ore cannot be conveyed in the same economical manner as a ton of iron ore. Neither can I comprehend why a Cornish miner should be compelled to descend ladders to the depth of 200 fms., and climb up again daily, to the destruction of his health, more than a collier or an ironstone miner. Cornishmen spend many thousands on pumping machinery, the drainage of old mines, &c., on mere speculation, and yet never bestow a thought on the arrangements required to raise the products economically, and provide for the easy and safe conveyance of the men to and from their work. Were a manager of a coal or iron mines found to neglect such arrangements he would not be able to hold his post for a month. Indeed, the cost of 1s. per ton for mere "raising" would be sufficient to close many collieries.

Capt. Tonkin, in last week's Journal, states that he is able to raise ore with the kibble at a cost of 1s. 4d. per ton from about 250 fathoms deep. This may possibly be the case in some well-managed mines, but I know many shallow mines in Cornwall and Devon where the kibbles are drawn up inclined and crooked shafts, the cost exceeding 5s. per ton. The Cornish engineers are equal to any engineers in the world, but, unfortunately for mining capitalists, they have nothing to do with Cornish mining further than to supply pumping-engines and other machinery, according to the orders of mining captains. Hence the reason why the system has been left much as it was three centuries ago—as illustrated in the work of George Agricola—with ladder-ways and kibbles.

Coal and iron mines are under the management of practical and responsible engineers, and who must arrange the works judiciously and economically, equal to the requirements and improvements of the age, to retain their posts. A mining captain may open a mine most slovenly, work it at a very great cost, even frequently neglect his duty, and leave the mine to be attended to by an understrapper for weeks together, and yet remain at the head, with a large salary, without fear of being dismissed, or his proceedings questioned. He is not called upon to prove his engineering abilities or qualities for management, all that is required is to send an occasional report on the value and prospects of the ends, &c. Reporting qualities appear to be everything in Cornish mining. It is true there are exceptions. We may find and select out of about 300 mines in Devon and Cornwall some 10 able mine captains, with engineering aptitude, quite fit for their offices, who would doubtless, if requested, lay open and work the mines as systematically and economically as the best of the coal mines; but upwards of 90 per cent. of the so-called captains are totally unfit to open and work mines legitimately and to a profit. I would recommend the captains of North Roskear, Carn Brea, Dolcoath, &c., to visit the Bedminster and Ashton mines. They need not go so far as Newcastle to see how mines are wrought economically. Capt. Tonkin has confessed, although somewhat reluctantly, that unless wire-ropes, skips, improved winding machinery, &c., be introduced, the deep mines of Cornwall will have to be stopped. To effect this desideratum, shafts must be made straight, perpendicular, or inclined, or divided, as in collieries, into two stages—slope and perpendicular, so as to introduce rails, guides, wire-ropes, and safety-cages. I hope this important subject will not be allowed to drop until some improvement has been effected.—*Bristol*, Oct. 29.

A. B.

JIGGING MACHINERY.

SIR.—In last week's Journal a letter appears, signed "Anti-Patent," in reference to my patent jiggling machine; and I beg to say, if the information given by your Truro correspondent in the Journal of August 17, together with your kind remarks on the 12th and 19th inst., are not sufficient to satisfy him as to the merits of the machine, I will have it tried and explained to him in London, or at my works at Porthleven, provided he will give his right name and address; and if he does not find it superior to any machine now in use for the same purpose, he can use machines that existed previous to the date of my patent, that will cost no patent rights; but if "Anti-Patent" or any of his friends see it to their advantage to use inventions brought to perfection with great trouble and expense, can they show a reason why they should not pay for it? JOHN HUNT.

Porthleven, Oct. 30.

HOW NATIVE GOLD WAS FORMED IN THE EARTH.

SIR.—Having stated in former letters that pure native gold is of Divine construction, which man can never assimilate by artful contrivances, and that the formation of nuggets are one thing and the natural deposits of gold another, both of which are subsequent to their atomic essentials being created, I will here attempt to show how such metallic solids got so hermetically enclosed in those adamantine matrices so much sought after by worldly folks. Without entering upon the primordial constitution of material matter, it will be enough here to give a few hints upon the secondary shape the earthy components of gold assumed—in the same metalline forms so many millions of solid grains display when brought to the light of day from those dark recesses they have so quiescently remained in for so many thousands of this planet's revolutions. But previous to the final consolidation of this globe's crust, its earths must have been in a state of semi-liquification, from causes known only to the great, grand, geologist of the universe, who, when the earth was of that consistency, ordained that every principle therein conglomerated, simply to obey the natural laws of chemical crystallisation; consequently certain proportions of soluble silica, &c., assumed the earthy form of granite, quartz, or what not, while the constituents of gold, silver, &c., attached themselves to their own congenial affinities; hence, by the time the earthy mass hardened, certain metals solidified in the very spots they are daily getting dislodged from. Had the terrestrial matrix naturally shaped itself and auriferous veins from any cause producing molten ignition, how could those soft perishable substances that are now so often found mechanically enveloped in the hardest stones, as well as in the solid metal itself, have withstood any such fiery ordeals as some benighted fellows scientifically attempt to demonstrate? On the other hand, had the auriferous lode stones got located in their present crystalline irregularities while in any watery decomposition, then the pure solid ground must have subsequently split its sides to enable such chasms to be filled with foreign liquid matter, containing metallic salts,

solids, &c.; had such been the method, the very weight of the dense grains would always have sunk themselves to the bottom, or to some place equal to their isolated gravity or impingement, whereas gold is often found embedded in the central parts of the hardest rocks, and never discovered but in irregular disseminations. Such would not have been the case had the precious dust been deposited by the agency of fire or water, whereas its speckled dispersion evidently shows that while planetary crystallisation was going on in the mass, each separated compound remained where chemically congregated, thereby enabling the densest metal to remain unchangeable in the soft compressed compound, till the whole mass hardened to certain configurations, when after-age operations began to separate and disperse a portion of the original congregation of yellow spangles among those disintegrated accumulations, generally styled by gold diggers alluvial deposits, but when or how such masses of earthy debris came to be finally deposited where so many fragments of the noble metal are daily exhumed, are questions to be treated of elsewhere.

G. F. GOBLE.

North Wales.

STRUCTURE OF METALS.

TO THE EDITOR OF THE JOURNAL OF THE SOCIETY OF ARTS.

SIR.—Resuming the subject of the structure of metals, contained in my last letter [See *Mining Journal*, Oct. 19], and especially of copper, to which I would particularly refer at present, it appears to me probable that the cells in metals are vacuums, or, at least, are not filled with atmospheric air, for this reason,—when a piece of metallic copper is newly broken from the mass, the inner surfaces of its cells reflect light most brilliantly; but, when exposed to the air, they quickly oxidise and lose their brilliancy; but, the same effect is also seen on silver to some extent, but the oxidising effect of the air not being so great on silver as on copper, the cells of the former retain their lustre longer.

It is worthy of remark that silver and copper, which show the greatest perfection of the cell system, are those which are known to be the best conductors of heat and electricity; this fact seems to indicate that these forces may travel through the cells, the extremely sensitive and brilliant surfaces of which, with the large area afforded in the aggregate by the myriads of cells which exist even in a wire, would apparently greatly facilitate. The custom of polishing metals to prevent the radiation of heat appears to confirm this view of it, for polishing metals seems to me to be only a closing of such of the cells as may have been opened by tarnish, a partial oxidation of the surface which has taken place, or by other accidental causes.

Observations on a large number of specimens have caused me to form the following opinion on copper:—That the best "select copper," which is the most ductile and malleable, owes its superiority in these qualities to the perfection of its cell system; or, in other words, to its freedom from an intermixture of the red oxide of copper, the principal difference between different samples of copper being the quantity of the red oxide that may be intermixed with the metallic mass. This intermixture is exceedingly interesting and beautiful: the form of metallic copper being naturally cellular, the form of the red oxide of copper is globular, so that in an impure sample of copper the minute globules of the red oxide are seen interspersed with the cells of the metallic; the former being of a beautiful ruby colour, presenting a rich variety of colour with the metallic, but this variety of constituents sadly deranges the structure and lines of fracture of the mass, and leads me to believe that the process of toughening the metal, by what is called "poling" during the refining, is principally, if not entirely, a mechanical one; for, by the ebullition caused by the plunging of the pole into the mass of fluid metal, the red oxide is liberated, and from its less specific gravity it instantly rises to the surface.

W. VIVIAN.

Parys Mines, Bangor.

ON STEAM-BOILER EXPLOSIONS.

SIR.—In a recent number of a contemporary publication appeared an account of the explosion at Heyford Ironworks, and an attempt was made to explain the cause of the explosion on the principle of Mr. Zerah Colburn's "Theory of Steam-Boiler Explosions." As a preventive against disastrous occurrences, it is of vast importance that we hold right notions of the causes which produce them. The statement alluded to goes on to state that one of the "tuyeres," which was encased in a jacket of cold water to preserve it from the intense heat of the furnace, suddenly became leaky, whereby a considerable quantity of water was forced on to the molten iron, and that the great body of steam which was immediately generated caused a most violent explosion, which shook the works to their very foundations.

Now I cannot conceive how "a most violent explosion," under such circumstances as those alleged as the cause of the explosion, by a sudden generation of steam, could possibly take place in unconfined space; nor do I think it possible, under the circumstances as related, that a large body of steam could be generated. Water coming in contact with molten iron would be decomposed in considerable quantity, its oxygen combining with the molten iron, and its hydrogen set free, instantly to combine with the oxygen of the blast-air of the furnace, ignited by the flame of the furnace, thus causing a violent explosion, analogous to what sometimes takes place in iron founders, where large castings are made, when the moulding sand is too wet when the iron is poured into the moulds. Such explosions are sometimes produced by the hydrogen combining instantly with the red-hot oxide of iron, thus causing the casting to rupture or blister; at other times explosions happen when the moulders light the hydrogen gas with shavings, &c., on the surface of the moulding-frames.

It is quite clear that in the case in question the hydrogen mixed with the blast-air of the furnace, and, ignited by the flame of the furnace, caused the oxygen of the blast-air instantly to combine with the free hydrogen to form water. The caloric held in solution by the gaseous elements of water when instantaneous condensation takes place, such as no doubt took place in the instance referred to at Heyford, would instantly quit its grasp of the elements it held in bond and become free, and assume its electrical functions, analogous to the lightening flash of a thunder-cloud; for the lightening flash is obviously nothing more than the instantaneous separation of the caloric of the watery vapour of such a cloud in its tendency to gain a simultaneous equilibrium of temperature and electricity through a non-conducting medium. The expansive force of caloric when thus set free is tremendous, and its elasticity enormously increased.

W. STEEVENS.

STEAM-BOILER EXPLOSIONS.

SIR.—The frequency with which we hear of steam-boiler explosions, too often accompanied with a greater or less destruction of human life and serious mutilations, ought to arouse the dormant energies of every one interested in mining. That these explosions arise from various causes no one will attempt to deny,—too often, I fear, the result of the engineer's carelessness. Can we wonder at this, when we know how defective his education in this department of mining has been? Many only become engineers on their becoming invalided and unfit for underground labour.

To remedy this monstrous evil, I would suggest that an examining body of practical engineers be elected by the committees and managers of our principal mines, to all persons desirous of becoming engineers; that on their being found qualified they should have a duly attested certificate of competency handed to them, and for which the sum of 10s. should be paid; the examinations to take place once in six months, and to be in connection with the Mining Association of this country; and that from and after a given date no person be employed to take charge of either a draft, winding, or other steam-engine who cannot produce his certificate of qualification to the engineer or manager of the mine. Any engineer or manager employing an unqualified person to be subject to fine or dismissal.

The fund arising from these examinations to be appropriated to defray the travelling expenses, &c., of the examining body. But should there be a surplus of capital, I would suggest that it form the nucleus of a fund to be disposed of in one or more annual premiums (in connection with the Royal Cornwall Polytechnic Society), to be awarded to the working engineer for working models or descriptive plans showing improvement in the construction and working of our steam-engines.

The corrosive action of all acid mineral waters also contributes its giant portion of mischief, honeycombing boilers and well-work to such an extent as to require the substitution of brass instead of iron for the latter, and in some instances silver-gilt for the former. Early in the constitution of the Royal Cornwall Polytechnic Society, the attention of the committee appears to have been directed to the destructive action of mineral water on the boilers and condensing work of our steam-engines; and although a liberal premium was for several consecutive years offered by the society for the best practical mode of obviating such corroding effects on the machinery, the subject, from some cause, does not appear to have excited that amount of emulation among the practical men of this country which its importance demands. In fact, I believe I am correct in stating that Mr. Robert Hunt has been the only person who considered the subject worthy of practical consideration, proof of which we have in the elaborate quantitative analyses of mineral waters made by him, and published in the Ninth Annual Report of the Royal Cornwall Polytechnic Society, published 'n 1841.

Early in the year 1855 my attention was casually drawn to the subject, and having procured samples of water from the underground levels of several mines, I subjected them to a minute qualitative analysis as my leisure would admit of my devoting to them. All the waters were found to have a strong acid (sulphuric) reaction on the tests employed; in two or three instances causing active galvanic action on immersing a slip of copper and another of zinc into the water.

It occurred to me that if by some simple and cheap means the acid could be neutralised, and the mineral basis held in solution be precipitated in a new form, and made available as a marketable product, an important object would be obtained, which at some future period, and perhaps, in a more perfect form, could not fail to be of considerable value in localities where the mineral water holding power in solution is al-

to flow into some adit or other stream, without any, even the rudest, means being employed to precipitate it for commercial purposes, till within the last few years two or three enterprising men established precipitating-pans on the banks of the leat below Bissoe. The great difficulty was to obtain an alkaline base of inconsiderable value, and sufficiently abundant to accomplish the object aimed at. The drift-sand from the Gwinni Hills appeared to be the substance wanted. Acting upon this idea, I subjected portions of the mineral water to percolation through a layer of sand, and I had the satisfaction of observing that, except in one or two instances, I had succeeded almost beyond my most sanguine anticipations. On the addition of a very small percentage of caustic lime, I found that the acid mineral waters became neutralised, the mineral held in solution precipitated, and the waters passing through the filter almost fit for the general purposes of household economy.

The mode of action is due to affinity or chemical attraction, the basis on which the science of chemistry is founded. Thus, in filtering a quantity of water (holding the mineral sulphates in solution) through sand, which is an impure carbonate of lime, double decomposition takes place, their mutual action being thus represented:—The sulphuric acid of the water having a greater affinity for lime than it has for copper, sulphate of lime is formed, whilst the carbonic acid set free from the lime of the sand combines with the copper and iron to form carbonates of the prototides of both minerals—carbonate of copper, even in this impure state, being a mineral formation of no inconsiderable value.

Should the hint thrown out in this hastily-written paper be considered of sufficient practical value as to induce some one to bring it into use, the object of the writer will be fully accomplished, his only desire being to bring under the notice of the mining world a simple and inexpensive mode of correcting the corrosive action of the water now generally used in the boilers, &c., of our steam-engines, thereby lessening the danger of explosions, and, consequently, increasing the commercial value of our second-hand boilers, well-work, &c.

The suggestion given in this paper is not (as is too frequently the case) an idle dogma of theory only, the writer having reduced his experiments to practice in 1855, by subjecting slips of sheet-iron to the continuous action of the mineral water, in the same condition as when it was brought from the mine, and also slips after the water had been filtered; and although a period of six years has elapsed since the experiments were commenced, the slips of iron in the filtered water are now as free from oxidation or corrosive action, and the edge of the iron as bright as it was on the first day of the experiment, excepting in one or two instances, from the defective manufacture of the iron. The bottles (with the dates of the experiments on labels) are open to the inspection of practical and scientific men.—*Chacewater*.

J. MOTTE.

MINES IN WHICH GREAT IMPROVEMENTS ARE SHORTLY EXPECTED TO TAKE PLACE.

SIR.—*WHEAL UNITY*: The men are now engaged cutting through the cross-course met with in the 75 fm. level. It is generally believed that when a lode is rich on one side of a cross-course it will be found rich when met with on the other side. In *Wheal Unity* the lode was very rich quite up to the cross-course, and it is, therefore, fully expected to be discovered rich on the other side. They are daily expecting to cut the lode, as they believe they are now nearly through the cross-course, and, should it be found rich, this mine may be one of the prizes of 1862. The shares are selling at a very low price, and should be bought.—*WEST POLMEAR*: In this mine they are driving a cross-cut to intersect the rich lodes of *Wheal Polmear*, and will reach the first lode in about three or four weeks, and within as many months will reach the whole of them. Some of the first practical miners in Cornwall hold a large interest in this mine, fully believing that the chances of success are very great indeed. Should only one of the lodes prove to be rich, a great advance in the price of the shares will take place, and it must be a very strange freak of Nature should all the lodes prove to be poor, as it is well known that the rich lodes which run through Polmear also run through West Polmear. This mine presents rare chances, and is one of the best speculations in Cornwall.—*WHEAL GRENVILLE*: As soon as the lode was discovered to be so rich in *East Grenville* at such a shallow depth, the agents of *Wheal Grenville* endeavoured to discover the same lode in that mine. By means of coasting-panes they found it, and have sunk on it for several fathoms, the appearances being more favourable than they were in *East Grenville* at the same depth. In addition to this, they are driving a cross-cut from the 80 to intersect the lode at that depth, where it is fully expected it will prove to be very rich. Any day we may expect the lode to be cut, as they must be now quite near it. This mine is well supplied with machinery of the best description, and, should the lode in the 80 cross-cut be met with rich, this mine will become a paying mine, and shares will then go to a high price.

GREAT RETALACK: This mine can raise 500 tons of blende per month, which is more than sufficient to pay all expenses, and it is intended for the future to raise this quantity. This, however, is not the great object in working Retalack; the object is to discover either silver or lead, or both in combination, and it is generally supposed that under such an enormous mass of blende large quantities of lead or silver must ultimately be found. The shaft is, therefore, being sunk as quickly as possible to get to the silver or lead deposit. That they are approaching it is evident from the fact that they are already discovering stones of ore having silver-lead in them, and those stones are increasing in quantity. When the mine is 10 fms. deeper a great discovery may reasonably be expected. The shares are well held, and are difficult to obtain in large numbers.

The above improvements, which are shortly expected to take place in the mines mentioned, are by miners termed "points," and it is by watching when such "points" are likely to come off that speculators in mines make money. The man, therefore, who studies these "points" has a very great advantage over others who do not study them. Here they are, however, openly stated in four mines *pro bono publico*.

AN OLD SPECULATOR IN MINES.

TO THE DIRECTORS OF THE GREAT TYWARTHIALE MINING COMPANY.

MY LORD AND GENTLEMEN.—I beg to state that the letter I wrote, which appeared in the *Mining Journal* of September 28, 1861, was not written with the least disrespect to yourselves, or with the intention in any way of injuring the prospects of the mine; and on reflection I wish to withdraw that letter, as I now feel I had no right, in my then position as one of your agents, to do so without previously consulting you or the secretary.

I wish to add that I leave your service without any ill-feeling to anyone in your employ.

St. Stephen's, St. Austell, Oct. 25.

JOHN EDWARDS.

NORTH WHEAL ROBERT.

SIR.—If your anonymous correspondents are shareholders in this mine, they should go to the office, as I have done, and there they would readily get the fullest information, and

Meetings of Mining Companies.

BRYNFORD HALL MINING COMPANY.

A general meeting of proprietors was held at the company's offices, Adam's-court, Old Broad-street, on Tuesday, Mr. PAGE in the chair.

Mr. DUNSDORF (the secretary) having read the notice convening the meeting, the minutes of the last were read and confirmed. The accounts showed:—

Mine cost, merchants' bills, &c., for the four months ending Sept.	£738 16 7
Dues	19 3 5
Interest and discount	4 10 5 = £762 10 5
Lead ore sold	247 2 0
Leaving debit balance	£515 8 4

There was a balance of liabilities over assets of 48s. 18s. 4d.

The report of the agent was read, as follows:—

Oct. 26.—Since your last quarterly meeting this mine has continued poor, and our returns have been smaller than usual, owing to the falling off in the east (chert) end, or Hammersley's pipe. I have directed all my attention to the opening of new ground in the western part of the sett (limestone), and have done a great deal of work, which I make no doubt will in a short time amply repay you for your patient and outlay.—Milw'r Vein: The character of the ground in the 100 yard level is very favourable for ore; we have at the foreborest tumblers, clay, spar, and lead ore; the drivage is easy, and I consider it the finest trial in Wales. Bostock's vein runs north and south, yields some good ore, and promises to improve; it is an entirely new ground.—Lloyd's Vein: We have two men driving in the bottom, and six men opening a sump from the 60 to the 80 yard level; this will be finished in about six weeks, when we shall be in a position to raise ore. Simon's shaft is down 60 yards; we have here three east and west veins, driving on one west from shaft, which yields good lumps of ore; this is a splendid trial. Granger's shaft is down 75 yards, and in course of sinking 20 yards deeper, between two north and south veins; 5 yards deeper will take the lode. We have two men driving south on one vein, which yields good lumps of ore; we expect to be down the 5 yards in three or four weeks.—Page's Shaft: I am continuing the cross-cut north from this shaft, but there is no alteration. It is impossible for me to give an estimate of returns for current quarter, as we have not yet had time to open the new ground; we are proceeding as rapidly as we can, and I have no sort of doubt in my own mind but that in a short time Brynford Hall will be one of the best mines in the district.—THOMAS PIERCE.

The CHAIRMAN having moved the adoption of the report and accounts, stated that he had recently visited the mine, and minutely examined into all its details; and he was happy to say that he could fully endorse all that was stated in the report just read. He concluded by stating that he would be glad to answer any question or afford any information in his power.

Mr. G. BATTEN said that it was with no small gratification he informed the meeting that some proprietors, already somewhat largely interested in the undertaking, had materially increased their holdings, after having had the mine inspected by Messrs. Phillips and Darlington. He (Mr. Batten) had good ground for stating that Messrs. Phillips and Darlington considered the Brynford Hall Mine possessed unusual prospects of becoming a permanently productive property, and that the various trials now being prosecuted would result in success. He might also mention that some two or three weeks since he (Mr. Batten) visited Brynford Hall and several other mines in the vicinity, at the special request of gentlemen interested in the various properties, as well as for his own personal guidance; and, after having gone carefully into the matter, he was of opinion that, although a great deal of money had been expended in opening Brynford Hall, their operations had been so extended as to prove that they had three distinct mines, and, therefore, their chances of success were tripled, and their future expense would be confined to the achievement of actual results. For his own part, he had the greatest confidence in the success of the undertaking.

Mr. MOCATTI having seconded the proposition for the adoption of the report and accounts, it was put and carried unanimously.

The CHAIRMAN said the next question was with regard to the financial position of the company. The committee recommended that a call of 3s. per share should be made, and suggested that a discount of 5 per cent. be allowed if the same be paid within 14 days.

Mr. MOCATTI called attention to the arrears of call, remarking that some means should be adopted for getting them paid.

The CHAIRMAN said that whatever arrears there were were upon the last call, the whole would soon be paid.

The SECRETARY, in answer to a question, stated that there was not a single liability against the mine beyond those charged in the statement of accounts just submitted. The whole of the cost up to September had been paid. There had been a great deal of dead work in the mine lately, the whole cost of which had been paid.

The CHAIRMAN said the exceedingly cheering features which the mine presented had induced him to increase his interest to a considerable extent.

A call of 3s. per share was made, and a discount of 5 per cent. to be allowed if the same be paid within fourteen days.

The committee of management having been re-elected, a vote of thanks to the Chairman was passed, when the proceedings terminated.

HERWARD UNITED MINING COMPANY.

A general meeting of shareholders was held at the company's offices, Adam's-court, Old Broad-street, on Tuesday, Mr. PAGE in the chair.

Mr. DUNSDORF (the secretary) read the notice convening the meeting, and the minutes of the last meeting were read and confirmed. The accounts showed:—

Mine cost, July, August, and September	£495 7 0
Dues	35 14 11
Commission	2 2 9 = £533 4 8
Ors sold	373 16 0

Leaving debit balance

There was a balance of assets over liabilities of 129s. 11s. 4d.

The report of the agent was read, as follows:—

Oct. 26.—In the past quarter our operations have been principally directed to laying open the ground for working on the two east and west veins met with in the cross-cut from the sump in the 80 yard level, west from Dunsford's shaft, and which we call Page's vein, Nos. 1 and 2. In No. 1 we have begun to drive west towards the common, where we have opened an old shaft (Page's) sunk 65 yards, and we calculate the vein will run under it about 15 yards below the 65. We have cleared the shaft to the depth of over 40 yards, and shall lose no time in pushing on the work. These two veins run parallel with the main vein, underlie towards it, and will, in my opinion, come together in depth, and make a very strong productive lode; the sumps have been sunk a few yards on both veins in grey ground. The sump in the bottom of the 80 yard level, on the main vein, continues rather hard, but yields a little ore; the ends looking better, with good lumps of ore. In the eastern shaft (Ward's) we are sinking a sump on the end of the 55 yard level, and from indications expect we shall come into the same run of ore we had west from the shaft. Upon the whole, our prospects have very much improved, and I hope and believe when we have had time to develop the different points of operation you will have a good and profitable mine.—THOMAS PIERCE.

The CHAIRMAN having moved the adoption of the report and accounts, Mr. BATTERS enquired if it was the intention of the committee to propose a call upon the present occasion?—The SECRETARY replied, that seeing there was a balance in favour of mine of 129s., that there was not an outstanding liability, and that it was estimated the costs and returns for the current quarter would be about the same as that just passed, the committee did not propose to recommend a call upon the present occasion. By the balance-sheet just presented it would be seen that their sales had realised 516s., while their cost had been 500s., so that without any improvement at all their returns were very nearly met their expenditure. He might state that since the last meeting he had several times visited the mine, as well as others in the district, and was much pleased with their general appearance and prospects.

The CHAIRMAN, in answer to a question, stated that a new vein had been recently discovered running parallel with the large vein, and it was the opinion of the agents they would form a junction in depth, in which case they might expect to meet with a very large deposit of ore.

Mr. BATTERS had much pleasure in proposing the re-election of the committee. He was sure they could not possibly select a better one, more especially as two of the members, being large shareholders, and residing but a comparatively short distance from the mine, often visited it; and he had understood their suggestions had been of the utmost service. There was no doubt in his mind that they would have a good and permanent mine in Herward; but whatever success might attend their operations, he, for one, felt they were greatly indebted to the assiduity and ability of their committee of management. No mine could be more economically conducted; and he believed results would soon prove that they possessed a permanent dividend-paying property. Indeed, there was scarcely a mine in the whole locality that had ever been moderately worked—that is to say, moderately worked in a miner-like way—that had not resulted in producing good profits. But if they went into almost any other district the result would be found to be quite the contrary, success being the exception, and not the rule. In Flintshire, success was the rule, with but few, if any, exceptions. Why, it would cost more money to open up a single mine in Cornwall than had been spent in the whole county of Flintshire. Having congratulated the shareholders upon the prospects of their undertaking, he concluded by moving the re-election of the committee, which, being duly seconded, was put and carried.

A vote of thanks to the Chairman was passed, when the proceedings terminated.

PENDEEN CONSOLIDATED MINING COMPANY.

The ordinary two-monthly meeting of shareholders was held at the London Tavern Bishopton, on Tuesday, Mr. W. BAWDEN in the chair.

The notice convening the meeting was read, and the minutes of the last confirmed. The accounts for the months of Aug. and Sept. showed a loss upon the working of 230s. 17s. 2d. There was a balance of assets over liabilities of 1624s. 19s. 6d.

The report of the agent concluded by stating that in consequence of the shoots of ore gone down in the bottom of the 116 and 118 dipping north much faster than they had reason to expect, they had not reached the ore so soon as they anticipated. This, together with the ore ground working home to the Duchy ground, had caused the diminution in their returns, but they hoped soon again to work their undershoot ground, which would enable them to again bring up the samplings to the previously usual quantity, and that of an improved quality.

The CHAIRMAN, in moving the adoption of the report and accounts, congratulated the shareholders upon the prospects which the property presented. When they resumed their undershoot operations there could be no doubt their returns would be materially increased, which would soon place the property in a dividend-paying condition. The bottom levels, the 118 and the 130, were nearly up to the ore ground, where they would have three levels being driven in one ground, and if the lode only proved to be of the same value at those two levels as it was at the 106, the results would be more than equal to their most sanguine expectations. As regarded the long looked-for lease, he was glad to say that a draft was now in the hands of the committee, which showed that a material modification—indeed, an entire remodelling—had been made. The lease was now in every respect all it could be desired. Upon examining the former draft the committee found that it contained several objectionable clauses, which had been removed. The Duchy and Crown were to be signed in a few days, when there would be no further delay than that which would take place for engrossing. They would then have a complete lease for the term of 21 years.

The SECRETARY read a letter from Mr. White, to the effect that the sets from the Duchy and Crown were expected daily, in the course of a few days.

Mr. BAWDEN said there were considerable reasons why there had been a loss upon the past two months' operations, the simple fact being that, until they obtained their lease they

could not follow the ore under the sea—hence the falling off in their returns. He made those observations last year it might be thought the loss had been consequent upon the poverty of the mine.

The CHAIRMAN then read a letter from Mr. R. W. Childs, to the effect that the terms of the lease were in every respect fair and reasonable.

Mr. THORNTONWHITE said that he had recently been underground at Pendean, where he was exceedingly encouraged, not only with the whole of the details, but what was of more importance, with the rich character of the ore. It was a rich grey ore, and it was dipping north. He plainly saw that the greatest and best part of their property they were then unable to touch, from not having obtained the lease. But as that lease had now been obtained, they had three levels which they could at once prosecute, and as one was already in rich ore ground, and the two levels would soon reach it, there could be no doubt as to results. The ore was very rich—indeed, so rich that, according to the opinion of several practical men to whom he had shown it, it was the finest character of ore they had ever seen. Although some delay had occurred from not being able to drive their levels, he might mention that no time had really been lost, for they had gone on striking, and had so made preparations for the rapid development of their property in depth.

The report was then received and adopted, and the accounts passed and allowed.

A resolution was then passed approving the draft of the lease submitted, and indemnifying the grantees against all liability. Messrs. Bawden, Clifford, and Birdseye were re-elected members of the committee, to appoint the fourth.

The CHAIRMAN said a letter had been received in respect of five shares which had been fraudulently transferred.

It being agreed that the matter should be left in the hands of the committee, a vote of thanks to the Chairman was passed, when the proceedings terminated.

WHEAL DAMSEL MINING COMPANY.

An ordinary general meeting of shareholders was held at the company's offices, Adam's-court, Old Broad-street, on Tuesday, Mr. DUNSDORF in the chair.

The notice convening the meeting having been read, the minutes of the last were read and confirmed. The accounts showed:—

Balance last audit	£ 578 8 11
Mine cost, July, Aug., and Sept.	558 15 3
Merchants' bills	242 3 8
Club account	2 1 3
Incidental expenses	0 5 6 = £1381 14 7
Call	£1024 0 0
Copper ore sold	48 12 7
Materials sold	2 9 0 = 1075 1 7

Leaving debit balance

£306 13 0

The report of the agents was read, as follows:—

Oct. 28.—The engine-shaft is perfectly secured and completed to the 28, under the audit, and is set to nine men, at 51. 10s. per fm., to clear, timber, case, and divide below this level, and we look forward to reach and complete this work to the 50 in about eight weeks from this date.—Tremayne's Lode: Four men are employed in clearing up the adit level, east of Skewen's flockan, on this lode; the ground is whole under this level, with the exception of two or three little pits sunk in the bottom as deep as the water would admit before the engine was set to work, and from what we have seen I believe we shall find some grey ground at or about this place, it being the same lode that West Damsel, the adjoining mine, at the same depth is making all its ore.—King's Shaft: Since our last general meeting of adventurers the 40 cross-cut has been driven south 47 fms., at which point a lode has been intersected, and opened on 9 fms., but being influenced by the cross-course is decomposed. In the eastern end the lode is 1 ft. wide, composed of gneiss, fluor-spur, and prism. In the western end the lode is 18 in. wide, and similar in character; these two ends are driving by six men. In conclusion, we beg leave to submit to your consideration the following remarks:—To push on with all dispatch the engine-shaft, to be cleared to the 50, where will be found good ventilation from Fox's shaft to enable us to resume any of the ends on the south lodes in whole ground to the east of the 50 cross-cut, put out from this shaft, and also to resume driving the cross-cut further south, to intersect Tregoning's and Wheal Fortune lodes, never seen under the adit level, where these indications are very promising to become productive in depth. To continue driving the 40 cross-cut, south from King's shaft, with a full party of men, to cut three other lodes known to be all in whole ground to the east of the great county cross-course, the water being drained 90 fms. under the deep adit level. To clear up the bottom of the adit level, on Tremayne's lode, having every reason to think some good ore ground may be met with about this point. The engine with flat-rods and pitwork are in excellent order, and work well, and will clear the engine-shaft with ease to any deeper level that may be thought proper, and to the bottom of the mine when required.—RICHARD PYOR, SEN., HENRY HARVEY.

The CHAIRMAN having moved the adoption of the report and accounts, stated that the report so fully explained the position of the mine that it was unnecessary for him to make any lengthened remarks. He might, however, say, notwithstanding the disappointment which must naturally be felt at the lode recently intersected not having been cut rich, that he considered there were very good chances of success in the various points referred to in the agent's report. Cross-cutting would have to be continued, as there were several lodes known to traverse the sets from which it was more than probable some good results would be secured before the next meeting. He called particular attention to the fact that in the Gwennap district lodes were not usually productive when under the influence of the cross-courses, but when the lodes got beyond the cross-courses they produced more than an ordinary quantity of mineral.

The SECRETARY, in answer to a remark from Mr. Balster, handed the latter gentleman the cost-sheets, who, after examining them, said he thought the expenditure very moderate, considering the amount of work done.

Mr. THOMAS KING, in answer to a question, stated that since the last meeting there had been driven about 27 fms. in the cross-cut, and he thought there was every reason to expect that further development would open up a good course of ore in that direction. The fact alluded to by the Chairman—that the lodes in the Gwennap district did not make in the cross-courses—was a rule with but few, if any, exceptions; but as soon as the ground became somewhat harder the lode became permanently productive. There were several lodes ahead, and, therefore, the cross-cut would be continued with all speed. In about six weeks they expected another lode would be reached. In the old part of the mine the lode has been seen at the engine-shaft; that was the more important, inasmuch as it was in whole ground to surface. From the indications presented, the agents were strongly of opinion they were in the neighbourhood of a course of ore. It had been determined to sink a winze below the adit level. For his own part, he was exceedingly sanguine as to the success of the undertaking, and he trusted that even before they met again some satisfactory result would be realised.

The report and accounts having been received and adopted,

The CHAIRMAN said the next question was one of finance. After fully deliberating upon the matter, the committee were unanimous in their recommendation that a call of 3s. per share should be made—and that, they calculated, would meet their requirements for the next four months.—A call of 3s. was accordingly made.

A vote of thanks to the Chairman was passed, when the proceedings terminated.

TRELOWETH MINING COMPANY.

A general meeting of shareholders was held at the company's offices, New Broad-street, on Thursday, Mr. BRIGHTMAN in the chair.

Mr. E. J. COLE (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed. The accounts to the end of Aug. showed:—

Balance last audit	£ 830 14 4

</

appearance in the north and at the bottom of the winze, accompanying the mudi, the leader of best ore being about 1 ft. wide. The whole breadth of the lode is about 6 ft. This favourable change is of some importance, and I have thought it worth while to communicate it to you, hoping that the news may arrive in time to prevent any apprehension on account of the winze not having recently been so favourable as before. The depth of the winze from the 110 is 4 fms. 1 ft. No profit and loss account received.—Marmato Establishment: No despatches.

UNITED MEXICAN.—Guanajuato, Sept. 9: Mine of Jesus María y José: Of the works in this mine the frentes of San Roberto is particularly good; La Trinidad and La Providencia are, as before, in a satisfactory state; San Pantaleon is still poor, and the pozos de Jesus does not give ore. The communication by the pozos of San Andres has just been effected, and the improved ventilation will enable more men to be employed, and the extraction to be increased. The frentes of San Andres has been resumed, and a new work between it and San Roberto will be commenced.

Sept. 21.—Mine of Jesus María y José: The frentes of La Trinidad and San Pantaleon, which have now been driven to a considerable distance, are poor, but the vein is of so great a width that in each work two cross-cuts have been opened at different points back, and all give good ore. The frentes of San Roberto and La Providencia have improved, especially the former. The new frentes of San Nicholas just commenced, and that of San Andres resumed, have not yet reached the point where the good ore may be expected, but the indications are very favourable, and yesterday a little ore of a first-rate quality was obtained from San Nicholas. It has been proved by the cross-cut of San Gabriel that the two veins, which unite at the pozos of Dolores, do not again separate to the south. In four weeks the extraction by regular miners has been 4773 cargas, of which 2460 cargas of the best class have been sold for \$20,264, and the buscones' sales have produced \$5748, half on the mine account. The profit in August was \$21,484.7, and a rapsa for gold from Dolores, which will come into account in the present month, gives \$14,487.—Mine of La Trinidad: One frente is in progress, without important change.—Remittance: Is sent per conducta on Sept. 3 the sum of \$35,000 to the directors. The specie was consigned to Messrs. Augurio, Borneo, and Co., of Colima, to be forwarded via Panama.

VICTOR EMANUEL.—Miggliandone, Oct. 22: We are happy to inform you that the Jury of the Mining Department of the Florence Exhibition have given to our company one of the six medals awarded by them to the Italian copper mines, representing therefrom. From the mines we have to report as follows:—Miggliandone: The tramway from Falconer's level works well; in the end of this level a decided improvement has taken place; it contains now good stones of copper ore, and we seem to be approaching the ore down in Thompson's level. Baveno: The shaft of the old mine is gradually being drained and re-timbered, and we are now enabled to form an idea of the great riches the old miners must have had by what they have left. In a level driven from this shaft, and now drained, is still standing a lode about 3 ft. wide, composed of spar and most splendid yellow copper ore, about 20 ft. per ton; we have broken some large rocks of it, almost solid ore. In the Victor Emanuel level the lode is still as promising as last reported, producing large quantities of dredgy work, composed of spar, yellow and black ore, all of which can be brought to a high percentage by jiggling it; the lode is very speedy for dredging. From Hay's shaft large quantities of water continue to issue. We shall now soon be in a position to make an exact measurement of the distance we have to drive to come under the old mine. Next week we shall again send ore for shipment to Genoa from Miggliandone.

PACHUCA.—Capt. Paul, Sept. 25: In the adit level the lode is improving very much on the south or soft part; it is producing good stones of ore, mixed with very pretty quartz. I think some will assay over 20 mrs. per monton (say, 112 ozs. of silver to the ton), which we are keeping apart. In the north, or hard part, the lode is just the same as last month, producing low ley ore, but as San Juan level is 20 varas deeper I trust we shall find metal of better ley when we reach the part of the lode the adit is in; we are about 3 varas short, which I expect to complete next week. The ground is still favourable for sinking in San Juan shaft, and the water we can easily manage, not having to draw more than 6 or 8 botas (leather bags) per day; it is sinking in Las Animas winze at about the same rate as we are sinking the shaft. At San Luis the lode is more promising than last month, ground more favourable for driving, and a little more water coming out; in consequence of the very heavy rains we have had to draw water for several days.

ENGLISH AND CANADIAN.—Herbert Williams, Francis Bennetts, jun., Oct. 5: Morrison's adit is advanced east of Grass shaft, No. 2, 3 fms. 0 ft. 7 in. without discovery to note; ground easier; re-set for October to four men, at \$48 per fm., being \$1 per fm. less than last month. The adit level south, or west branch of Fremont's lode, is advanced 1 fm. 0 ft. 9 in. without change; re-set to four men, at \$68 per fm., being \$2 per fm. less than last month.—Adit Level North, on Sewell's Lode: The winze is sunk from bottom of level 1 fm. 2 ft. 4 in., the lode having maintained the same average size for that depth, and yielded some excellent saving work; re-set for October at \$110 per fm., being a reduction of \$4 on last price; the lode is not so confused as at any time since commencement.—Hall's Lode: Broke on this stop 6 fms. 1 ft. of ground, and obtained \$300 worth of ore; the lode continues much the same, and is re-set to stop by two men, at \$15 per fm., same price as previously paid.—Kent's Shaft: Omitted to mention last month that 3 fms. 0 ft. 3 in. were broken in the 30 west; since it has advanced 3 fms. 2 ft., and is re-set at \$70 per fm., to cut the lode, being the same price as last month; we are watching the result with great anxiety, in daily expectation of intersecting the lode.—Campbell's Lode: Broke 3 fms. 0 ft. 11 in., and obtained about \$60 of ore; suspended because branch has become poor.—Tilt's Lode: Is north stop 7 fms. 4 ft. 8 in., and in south stop 10 fms. 2 ft. 8 in., and obtained about \$675 worth of ore. In consequence of the lateness of season and heavy rains not so many men can be employed. We are carrying on the north stop in order to drain the centre and south stopes, where a good branch of ore remains along the bottom; north stop set to four men, at \$10 per fm.—Stobart's Lode: Broke on the surface stop 7 fms. 2 ft. 10 in., and obtained about \$120 worth of ore; we are through the lode, which at the bottom is poor, and it presents such indications as induce the re-setting of it at \$10 per fm. The total value of ore extracted in September was about \$1155.—Dressing: We have sampled, dried, packed, and forwarded for shipment 16 tons 7 cwt. nett of ore, yielding by assay 38 per cent. We have another parcel in a forward state, which we hope to send to Quebec before the close of navigation.

CLARENDON.—Capt. Martin, Oct. 5: Stamford Hill Mine: I sent down the dressed ore as, requested, to the wharf. The undressed ore we have at the mine all in readiness, which would have been at the wharf long ago had not the heavy rains set in, and prevented sending it down. I am anxiously engaged devising the best means of pushing on the mine, and getting up the materials from the wharf, as well as sending down the ore. The ground in the cross-cut in the 94 is very hard for driving; the lode in the winze, however, is large, which is being sunk on below the 92 fm. level.

THE ASPHALTUM COMPANY.—Havana, Sept. 29: Prosperidad Mine: We are forwarding 200 tons of our second quality asphaltum, as raised, to Havana; sold at \$10^{1/2} per ton for shipment—a very good price. We are expecting further orders. We are driving our second level eastward from C shaft, and the quality of the asphaltum is vastly improved in that direction, where the main body is 150 feet wide. The level end has reached the old workings, under B shaft, where was reported to be a width of 14 feet of fine asphaltum; the old workings are to the north of our present drove. On Sept. 26 we cleared up, and found the width of the asphaltum to be 15 ft. solid mineral, and still improving in quality and width as it goes east. We can raise any quantity required. At Santa Teresa Mine we are sinking the new shaft 30 feet deeper, and shall then drive out to the run of asphaltum we have in the level above, where it is of fine quality, fit for varnish making. The shade shaft is down 27 feet, with fine indications for asphaltum. We were obliged to stop sinking until some timber arrived, and 3000 ft. have now been sent up. We shall soon be able to ship to you a large quantity of asphaltum at low freight, and as ballast.

PARIS LAND COMPANY.—The continually increasing value of land in Paris and its vicinity has induced the formation of an influential company (the Paris Land Company), with a capital of 100,000^l, in 10,000 shares, the whole of which is payable on allotment. The company has already secured some eligible plots of land, of about 22 acres in extent, at 18 ft. per metre; and it is estimated that this would be saleable at 34 ft. per metre. Under the French law, foreigners can possess freehold property, and enjoy precisely the same protection, even in case of war, as French subjects; so that no fear need be entertained of the security offered by the investment. The present temporary derangement in the Paris money market has increased the company's power to make profits, consequently its position is all that could be desired.

BRICKMAKING EXTRAORDINARY—PROFITABLE INVESTMENT OF CAPITAL.—British citizens freely invest capital in remote and doubtful speculations, with the hope of getting 5, 6, or 7 per cent. per annum for the use thereof, and in which projects they most frequently get no interest and lose the principal. Even home speculations very rarely fully realise the hopes entertained by those who embark in them. We are led to the above reflections by the examination of the plan, sections, and description of an improved patent Brickmaking Machine, which the patentee has forwarded us, which clearly prove that science and art are capable of opening wide fields for the investment of spare capital at home, paying enormous interest, with perfect safety of that capital. Hand-moulded bricks are allowed to be superior to bricks produced by any machine hitherto invented. The London clay can scarcely be worked by them; but the machine under our inspection minutely imitates hand-moulding in all its operations, adding to them the force and velocity of machinery. The machine fills successive groups of moulds with tempered clay, half dry; it compresses the clay into the moulds by a double eccentric; it shaves off the surplus clay, which is thrown back by the eccentric. The group of filled moulds is discharged by the machine, and inverted by hand in an instant; a spring receiver is run underneath, and the whole group of moulds is instantly delivered on to it by a quarter turn of a small pinion. By a calculation of the working power of the machine, and taking each group of moulds at 30 bricks, we find that it is capable of moulding 360 bricks every minute, allowing the 4-horse power engine to make but 40 revolutions per minute: 360 per minute are 21,600 per hour, or 216,000 in 10 hours. The facility with which the bricks are taken away in groups, and stacked in stoves to be dried in 18 hours by steam heat, or stacked in the open air to be dried in four days, without regard to weather, is equal to be admired, as the production of so large a number, for every single brick has its top, bottom, sides, and ends equally exposed to the heat. The mode of obtaining a full and constant supply of clay to keep the largest sized machine in constant work, and the mode of tempering that large supply preparatory to moulding, are not less ingenious and efficient than the construction of the machine itself. The machines can be made to produce any required daily quantity of bricks, from 30,000 to 300,000. The estimated expenses for cost of clay near London, grinding and tempering clay, moulding and drying bricks, fuel for burning, packing and discharging kilns or clamp, is 10s. per 1000 best stock bricks. The patentee (Mr. W. Morris, C.E., of Lambeth-walk) states that he has experimentally tested all the parts of this small though efficient machine, and that 5800^l is quite sufficient capital to fit up and work one machine, capable of producing 200,000 bricks per day ready for sale. We take the patentee's word to be true, both from the appearance of the plans, and because a flat statement on his part would be useless. 200,000 bricks will be sold daily, at 25s. per 1000, the clear profit would be 15s. per 1000—that is 150^l per day from one machine only, which can work continuously, without regard to weather. From this we consider it satisfactorily proved that British capital can be more profitably employed at home than in risking it in doubtful foreign schemes.

HOLLOWAY'S OINTMENT AND PILLS.—MEASLES, CHILDREN'S DISEASES, &c.—Early measures are urgently required to keep within moderation the first symptoms of measles. When the fever first appears Holloway's ointment should be rubbed twice a day at least upon the throat and chest. It exsiccates the skin to throw out the rash more fully, and prevents its receding before the proper time. It maintains the eruption so freely on the skin that it precludes convulsions, inflammation of the lungs, and other distressing and dangerous symptoms. It likewise sooths and softens the cough. Holloway's pills should be given, if possible, to cool the hot, parched skin, to moderate the thirst, increase the expectoration, relieve the hurried breathing, and thoroughly to purify the blood.

Mining Correspondence.

BRITISH MINES.

ABERDOVEY.—A. Ede: The ground in the cross-cut, at the 42, is hard and troublesome for rising. The stop in the back of the 32, on main lode, is improved, and producing fully 1^{1/2} ton of ore per fathom. The stop in the 22 is also improved, producing from 12 to 15 cwt. per fm. In the 12 there is no alteration to notice, and the surface work and machinery are in excellent order. We shall be able to sample a good parcel of ore in the course of next week.

ALFRED CONSOLS.—S. Iren, T. Hosking, Oct. 30: There is no change in the 160, driving east and west of Davey's engine-shaft on the main lode, for the past week. The main lode in the 150, driving east of the above shaft, is 5 ft. wide, worth 5^{1/2} per fathom. The 120, driving east on this lode, is 3 ft. wide, worth 12^{1/2} per fathom. The north lode driving west of cross-cut in the 140, is 8 ft. wide, producing stones of ore. The lode driving east of cross-cut in the 140, is 8 ft. wide, worth 6^{1/2} per fm. We have cut a branch in the 130 cross-cut north 6 ft. wide, worth 4^{1/2} per fm.; we intend to prosecute this cross-cut further north to prove the ground in that direction. Taylor's stop in bottom of the 140, on the north part of the main lode, is worth 10^{1/2} per fm. Robert's stop is worth 15^{1/2} per fm. Richard's stop is worth 15^{1/2} per fm. Oats's stop is worth 12^{1/2} per fm. Floyd's stop is worth 12^{1/2} per fm. No other change.

ASHBURTON UNITED.—W. Edwards, Oct. 31: Hobson's engine-shaft is divided and cased, and footway put into the 78, and we are now able to draw from the bottom.

The men have again resumed driving the 78 and east. As we advance we find the lode improving. We have communicated the rise in the back of the 67 east with the winze sunk in the bottom of the 55, which has thoroughly ventilated this part of the mine, and enabled us to set another pitch. The driving of the end is again commenced by six men, and will be pushed on with all possible dispatch. The lode maintains the same size and character as when last reported on. In the cross-cut south from the western end the ground is without change. The cross-cut driving south from the 55 east is progressing favourably: we expect to cut the lode in about 3 fathoms more driving. In crossing-cutting north from this (western) level we have passed through a branch 4 inches wide, producing rich work for tin. The lode in the 25 west is 2 ft. wide, producing saving work for tin.—Parry's: In the 55 end west the lode is about 2 ft. wide, producing a little tin, but, on the whole, poor.—Brothers Shaft: We have nine men clearing this shaft, now down 8 fms. below the adit; we hope to see the 10 by Saturday next.—Teague's: No change to notice in this part. Our tribute department looks well throughout. We shall send away samples of our parcel (from 18 to 20 tons) of tin next week. The masons are busily engaged building the new engine-house, and hope to complete it in five weeks should the fine weather continue. The engine and all its appliances will be kept on the mine in a fortnight's time. We have 18 heads working on the new stamps, in all 42. Our dressing and other surface operations are progressing most satisfactorily.

BEDFORD CONSOLS.—John Mitchell, Oct. 28: Since the last general meeting the main adit level has been extended east, on the north lode, about 21 fms., through a lode varying from 1 to 2 ft. wide, and from which occasional stones of good ore have been broken; the lode in the present end is about 18 in. wide, composed of spar, mudi, flockan, and a little black and yellow copper ore. The No. 1 south lode has been extended on about 7 fms., through a lode varying from 10 in. to 2 ft. wide; the lode in the present end is about 2 ft. wide, composed of capel, peach, mudi, and occasional stones of copper ore. The cross-cut south has been extended towards the great south lode about 9 fms. 2 ft., the ground in the end is mixed with spar, spotted with mudi, and copper ore, and the water is coming strong from the end, which indicates that the lode is not far off, and although our progress is slow at present, I am of opinion that a productive lode will be found when intersected. We have one pitch working in back of the 27 by two men, at 12s. in 17', where the lode will now yield about 2 tons of ore per fm. I calculate we have about 40^{1/2} worth of copper ore broken, dressed and undressed. For the future working of the mine I would recommend the present points of operation to be kept on with the same number of hands now employed, until it is thought advisable to communicate with Sims's shaft.

BICKLEIGH VALE PHENIX.—J. Hambley, Oct. 30: Since I wrote you on the 24th the men have been employed taking up the bottom and putting in tram-iron, &c.; therefore no further discovery has been made in the end, only more water is flowing than before from the lode, which indicates the lode being more open before us, and which I expect we shall soon prove, as the ground is hard at present, but looking more kindly for copper.

BORRDALE (Cumberland).—W. Dixon, Oct. 31: The workings on Jim's stage has the same promising appearance for black lead; the vein is vertical, of a bright shining appearance. Also on Gill's stage we are rising, and have obtained a few pounds of black lead this week. We have cleared the excavation on William's pipe, and find the pipe to the west, which, by its position, will intersect Robert's west vein at a greater depth.

BRONFLOYD.—J. Lester, Oct. 30: We have no alteration to report in the working here, and everything progresses well towards developing the south lode. Barton's cross-cut is getting fast in.

BRYNAMBOR.—E. Williams, Oct. 26: The engine-shaft is being sunk with all possible speed, and I hope we shall be down to the 20, ready to cross-cut the lode by the latter part of next month. The pumps for lengthening the gear are on the road to the mine, and will be here on Monday. I am glad to inform you we are breaking beautiful lead ore in the winze, in solid lumps from 50 lbs. to 70 lbs. each, and the lode is looking better than ever. I am pushing on with the dressing-floors as fast as possible.

BRYNTAIL.—J. Roach, Oct. 31: We have commenced driving the 25, west of cross-cut, on the lode, which is now from 8 to 9 in. wide, composed chiefly of flockan, containing a little fine ore; this level, as I before stated, has to be driven under 70 or 80 fms. of ore ground in the 10'; in driving 2 or 3 fms. more we may expect great improvement. The lode in the 10 end is not so promising as it has been; it is at present divided into branches. The eastern part of the stop has a little improved; the western part continues as usual. We are dressing as fast as possible.

BULLER AND BASSET UNITED.—Wm. Pascoe, Oct. 30: I see but very little change in the end since the meeting. The ground in the 100, both east and west, is not so hard—east 5^{1/2} per fm., west 4^{1/2} ft., a kindly lode in both, not so much iron, and more soft spar and prian. The 80 is much the same as last reported. We have commenced to drive the 60, but the ground is hard to begin with.

S. S. Bice, Oct. 30: At the 80 west we are engaged in cutting through the north or footwall of the lode; and whilst underground to-day we broke some good-looking quartz and peach, with yellow copper ore; the quality of the ore is different to what they have in the 50. In the 80 there is a good substantial body in the ore.

CARADON CONSOLS.—W. Rich, Oct. 29: The lode in the 54 north is looking very promising, and will produce 1 ton of good quality ore per fm. I consider this to be the north part of the Menadine lode. We are putting in trap-doors at the different levels, and air-solars in the 54, with the view to improve the ventilation, so as to enable us to put on more force, and to open on the course of the lode west and east. The 54 west, on the south part of the Menadine, has an improving appearance as we leave the cross-course; the lode now carries better defined walls, and shows good spots of rich ore; this south lode is some 25 fms. from the before-mentioned north part. The counter lode, at the shaft, is not quite so large as it has been, which is owing to the influence of the cross-course; the lode in the 10 end is not so promising as it has been; it is at present divided into branches. The eastern part of the stop has a little improved; the western part continues as usual. We are dressing as fast as possible.

BULLER AND BASSET UNITED.—Wm. Pascoe, Oct. 30: I see but very little change in the end since the meeting. The ground in the 100, both east and west, is not so hard—east 5^{1/2} per fm., west 4^{1/2} ft., a kindly lode in both, not so much iron, and more soft spar and prian. The 80 is much the same as last reported. We have commenced to drive the 60, but the ground is hard to begin with.

S. S. Bice, Oct. 30: At the 80 west we are engaged in cutting through the north or footwall of the lode; and whilst underground to-day we broke some good-looking quartz and peach, with yellow copper ore; the quality of the ore is different to what they have in the 50. In the 80 there is a good substantial body in the ore.

CARADON CONSOLS.—W. Rich, Oct. 29: The lode in the 54 north is looking very promising, and will produce 1 ton of good quality ore per fm. I consider this to be the north part of the Menadine lode. We are putting in trap-doors at the different levels, and air-solars in the 54, with the view to improve the ventilation, so as to enable us to put on more force, and to open on the course of the lode west and east. The 54 west, on the south part of the Menadine, has an improving appearance as we leave the cross-course; the lode now carries better defined walls, and shows good spots of rich ore; this south lode is some 25 fms. from the before-mentioned north part. The counter lode, at the shaft, is not quite so large as it has been, which is owing to the influence of the cross-course; the lode in the 10 end is not so promising as it has been; it is at present divided into branches. The eastern part of the stop has a little improved; the western part continues as usual. We are dressing as fast as possible.

BULLER AND BASSET UNITED.—Wm. Pascoe, Oct. 30: I see but very little change in the end since the meeting. The ground in the 100, both east and west, is not so hard—east 5^{1/2} per fm., west 4^{1/2} ft., a kindly lode in both, not so much iron, and more soft spar and prian. The 80 is much the same as last reported. We have commenced to drive the 60, but the ground is hard to begin with.

S. S. Bice, Oct. 30: At the 80 west we are engaged in cutting through the north or footwall of the lode; and whilst underground to-day we broke some good-looking quartz and peach, with yellow copper ore; the quality of the ore is different to what they have in the 50. In the 80 there is a good substantial body in the ore.

CARADON CONSOLS.—W. Rich, Oct. 29: The lode in the 54 north is looking very promising, and will produce 1 ton of good quality ore per fm. I consider this to be the north part of the Menadine lode. We are putting in trap-doors at the different levels

fathom. John's winze below the 100, is being carried down on the north part of the lode, in which the ground is becoming more easy for exploration. In the stopes in back of the 100 east the lode is worth 12*t*. per fm. In the 100 east the lode is 4 feet wide, and consists of mudi, peat, and a little black oxide of copper. In the stopes in back of the 100, on Oats's No. 2 winze, the lode is worth 15*t*. per fm. In the 88 east, on the south part of the lode, the lode is 2 ft. wide, and yields a little. In the 66 east the lode is still being cut through, the last 2 ft. of which is promising, being composed of capel, mudi, quartz, prian, and stones of rich ore; the north wall is not yet reached. The 88, west of Hitchin's engine-shaft, is still being continued by side of the lode; ground favourable.

EAST WHEAL TOLGUS.—Oct. 23: Redruth Consols Lode: The lode in John's shaft, below the 70, is 15 inches big, composed of spar and peat, with stones of good ore. The lode in the 70 end east is 1 foot wide, consisting of spar, peat, and spots of ore; in the same level west the lode is 15 in. wide, composed of spar and peat, much the same in character and appearance as the lode in the shaft and east end. The stopes in the back of the 22, east of John's shaft, is worth for tin and copper ore 8*t*. per fm. No lode or branch met with in the 46 cross-cut north since last reported. The ground in the shaft sinking from surface is rather hard, and the water rather quick.

EXMOUTH.—J. P. Nichols, Oct. 30: The stopes in back of the 72 are at present yielding as follows:—Bishop's 1*t*. ton, Lanyon's 1*t*. ton, and Luckey's about 6 cwt. of lead per fm. The ground in the rise in back of the 60 north continues rather hard, but there is no alteration in the lode since last report. The 50 north is rather spare for driving; lode poor. The lode in the 40 south is yielding some stones of blende, and from its kindly nature we anticipate an improvement before long. The 20 south continues very easy for progress, and has very kindly indications, although unproductive at present. The tribute department is without alteration.

FRANK MILLS.—J. P. Nichols, J. Cornish, Oct. 30: The 84 north is yielding a little ore, but not enough to value; it is, however, becoming easier for driving. The 72 north is still showing good indications, and yielding some saving work. The winze sinking in bottom of the 60, on the west branch, is down from 4 to 5 fathoms; the branch has somewhat widened, and maintains its productiveness as we go down. During the greater part of last week we were occupied in making attempts to regain the passes and start the stopes in which we had the slide, but owing to the looseness of the ground we could not succeed. We have now commenced to put up a rise to the west of the lode from the back of the 60, in order to be out in the country in firm ground, as we find it utterly impossible to take away the lode without having a firm and substantial resting place for our timbers to stand on. This rise will be pushed on with all possible dispatch, and not an available moment will be lost. The rise which we are putting up further north in back of the 60 we expect to communicate to the 45 some time in the present week, when we shall be in a position to work all the stopes north of the run, and therefore be again in a better position for raising ore.

GAWTON.—G. Rowe, October 26: We have succeeded in clearing the shaft at the 36 sufficient to bring the water through the level to the big lift, but find the ore so bad that little can be done in driving the end until the water is sufficiently drained to effect a ventilation through the winzes and the 50; we are doing our best to effect this object at the earliest possible period, but in consequence of the bad state of the working-barrel our progress is slow.

GERNICK.—Charles Carkeek, Oct. 30: There is nothing new to report on this mine. Spencer's engine-shaft is 6 ft. below the 40, the lode in which continues 3 ft. wide, of a very congenial character for copper, and very easy for exploration. In the 30 east the water is increasing, from which I anticipate a change in the lode; at the same level, driving west, the lode is 2 feet wide, well defined, with two regular walls, a very promising lode.

GONAMENA.—R. Pascoe, W. George, jun., Oct. 30: In the 90 east, on Sarah's, the lode is still small and unproductive. In the 90 west the lode is 6 in. wide, producing a little ore, but not sufficient to value. In the 80 the lode has improved since our last report, and is now worth 1 ton of copper ore per fathom. The lode in the 70 east maintains a very kindly appearance, and is still producing some very good stones of ore. The winze sinking below this level is producing 1 ton of ore per fm. Good progress is being made in the rise above the 58, towards Hingston's shaft, in which the ground also continues very favourable for sinking.

GREAT CADABON.—F. C. Harper, Oct. 30: Since my last report no particular change has taken place. The ground in the shaft, sinking below the 40, continues pretty favourable for exploring, with a slight increase of water.

GREAT CRINNIS.—F. Puckey, E. Dunstan, Oct. 30: In the 120 we are driving by the side of the lode, which we shall continue to do for some little time, in order to drain the water to the bottom of the level, when we shall be able to cut out the lode much cheaper. In the 100 west we have cut the south wall of the lode, which at this point is full 12 ft. wide, and containing good stones of copper ore. In the winze sinking below this level we are still carrying about 6 ft. of the north part of the lode, which for this width we are still carrying stones of copper ore, and has a very kindly appearance.

GREAT SOUTH TOLGUS.—J. Daw, Oct. 30: In the 125, west of Lyle's shaft, the lode is 1*t*. ft. wide, composed of spar, peach, and mudi. In the 112 west the lode is 2*t*. ft. wide, producing stones of copper ore, but not enough to value. In the 40 west the lode is 2 ft. wide, producing 2 tons of ore per fm.

GREAT TREGUNE CONSOLS.—W. Richards, Oct. 31: I am glad to acquaint you that we have communicated the winze in the bottom of the 70 with the rise in back of the 80, whereby we have obtained first-rate ventilation, and good facilities for stopping the back of the 80. We have resumed the 80 west by a full force of six men, at 6*t*. per fm.; the lode in which is of the same value as reported last week—7*t*. 7*s*. per fathom. We have also resumed the cross-cut in the 60 by four men, at 11*t*. 11*s*. per fm. The new 12-in. plunger-lift will be fixed the beginning of next week, and we shall lose no time in making the necessary alteration for resuming the sinking below the 80. I am anxious to see the lode in the 90 as soon as possible.

GREAT WHEAL ALFRED.—Wm. Baggehole, J. Delbridge, Oct. 30: Copper House Shaft: The lode in the 220 west is 2*t*. ft. wide, poor, and unproductive. The lode in No. 1 stop, in back of this level, is worth 17*t*. per fm.; No. 2 is worth 18*t*. per fm.; No. 3 is worth 18*t*. per fm. The lode in No. 1 stop, in back of this level, is worth 21*t*. per fm.; No. 2 is worth 21*t*. per fm.; No. 3 is worth 14*t*. per fm.; and No. 4 stop is finished. The lode in the 210 end west is 5 ft. wide, worth 10*t*. per fm.

GREAT WHEAL BUSY.—J. Delbridge, J. Petherick, Oct. 26: Our prospects have not changed to notice since last report. The pitches continue to yield a large quantity of ore, especially those in the bottom of the 90. We are progressing with the other works as fast as possible. At Boscombe's we expect to drop the lift again in the early part of the week.

GREAT WHEAL MARTHA.—H. Rickard, Oct. 30: During the past week our sumpmen have been engaged in taking out penthouse in the 40, putting in casing, drivin

g below the 52, and fixing footway, which is complete, the ground being favourable for cutting plat, with which we are making good progress. The stopes in back of the 40 are much the same as last reported, producing about 5 tons of copper ore of good quality. The ground in the bottom of Thomas's shaft, below the 30, still remains good for sinking. The 20, west from Thomas's shaft, is worth fully 20*t*. per fm., now driving by six men, at 4*t*. 10*s*. per fm. We have cleared the 20, east from Thomas's shaft, about 40 fms., there being a run in the level which we shall have to clear through before we can reach the present end. The ground is standing whole to the 10, which can be taken away at profit to the shareholders. The tribute pitches are much as usual, yielding their usual quantity of copper ore. The prospects of the mine were never better than at present. We weighed off at Calstock Quay, on Friday last, September sampling, 318 tons, and sampled for Oct. (computed) 268 tons, and sold about 80 tons of coppery mudi, and will be shipped in a few days.

GREAT WHEAL VOR UNITED.—T. Gill, F. Francis, S. Harris, Oct. 29: In the 152, driving west of Metal engine-shaft, the lode is about 1 ft. wide, worth about 16*t*. per fm. In the 152, driving east of Metal engine-shaft, the lode is about 1 ft. wide, and worth 20*t*. per fathom. In the 142, driving east of Metal engine-shaft, the lode is 2*t*. ft. wide, worth 35*t*. per fm. In the 142 west we have driven south-west to intersect the south wall, which is very large and wet, and worth about 14*t*. per fathom. In the 132, driving east of Metal engine-shaft, the lode is about 1 ft. wide, and poor for mineral. In the 50, east of Edwards's shaft, the lode is about 2 ft. wide, and yielding a little tin, but not sufficient to value. We have six men preparing to sink Edwards's shaft below the 50. In a winze sinking below the 142 the lode is 4 feet wide, and worth about 130*t*. per fm. In a winze sinking below the 132, west of Metal engine-shaft, the lode is 2 ft. wide, and worth 25*t*. per fm. Our stopes are looking much the same as they have been for some time. All our machinery throughout the mine is working very well, by six men, at 4*t*. 10*s*. per fm.

GURILYN (Marazan).—W. W. Martin, J. Rees, Oct. 30: Badwen's Lode: The engine-shaft is now 3*t*. fathoms below the 60; the lode is 18 in. wide, composed of soft spar, mudi, and good stones of tin, and looking kindly for an improvement. In the 60 east the lode is 12 in. wide, composed of spar, mudi, and spotted with yellow copper. In the 60 west the lode is 18 in. wide, with good stones of tin. Riche's Lode: In the 40, west of cross-cut, the lode is 18 in. wide, opening tribute ground. In the 30 east the lode is 15 in. wide, worth 5*t*. per fm. In the winze sinking below the 30, west of cross-cut, the lode is 9 in. wide, worth 2*t*. per fm. We are progressing with the laying of rods towards Wheal Fox shaft, and hope to get them to work within fourteen days from this date.

HINGSTON DOWN CONSOLS.—T. Richards, Oct. 30: The 100 west is worth 30*t*. per fm., and promising improvement; the lode in the rise in back of this level will produce 26*t*. worth of copper ore per fm. The 85 west will produce 25*t*. worth of ore per fm.; the south part of the lode in the rise in back of this level contains more soft prian, quartz, &c., and will yield at present about 48*t*. worth of ore per fm.; the lode in the winze sinking in the bottom of this level is a fine course of ore, and will produce full 70*t*. worth of ore per fm. There is no alteration at any other point.

KELLY BRAY.—S. James, Oct. 26: There is no change of importance to notice in the western mine during the past week.—Eastern Mine: The lode in the 70 east is 4 ft. wide, a very strong lode, composed of quartz, mudi, blende, and occasionally stones of ore, and the water is strongly oozing from the end, which we consider is a favourable indication. The lode in the 60 east is 2 feet wide, carrying a leader of rich copper ore on the north part, from 2 to 4 inches wide, and there is every indication of a speedy improvement; there has not been much done in the end during the past week, owing to the men being engaged in putting in a railroad in order to facilitate the removal of the stuff. If any improvement takes place in any part of the mine I will at once advise you of it.

LADY BERTHIA.—Captains Harpur and Metherell, Oct. 26: This being our pay and setting-day the different bargains were re-set, particulars of which will be sent you. The lode in the 53 east is looking a shade better, being quite 3 feet wide, composed of mudi, quartz, peat, and some good stones of ore. All the other lodes, winzes, stopes, and pitches present much the same appearance and character as when last reported.

—Capt. Harpur and Metherell, Oct. 31: In the 53 east the lode is about 3 ft. wide, composed of quartz, mudi, and ore. In the same level west the lode is large, carrying mudi, quartz, and occasional stones of ore. In the 41 east we are progressing cutting north, where we think another portion of the lode is standing; in the present end the lode is about 18 in. wide, consisting of capel, peat, mudi, and a little ore. The lode in the stopes in the back of the 41 west continues large, composed of ore, mudi, and quartz, worth of the former 4 tons, or 20*t*. per fm. The lode in the 30 east continues about 5 ft. wide, composed of peat, mudi, quartz, and ore, worth of the latter 3 tons, or 12*t*. per fm. The lode in the winze sinking below this level, we are pleased to say, is very much improved since our last report, being from 5 to 6 feet wide, composed of mudi, peat, and spar, worth of the former 6 tons, or 24*t*. per fm. In the 20 east the lode is about 2 ft. wide, composed of quartz, iron, and mudi, intermixed with ore. The appearance of the lode in the 10 east is much the same as for some time past, composed of quartz, mudi, and ore, worth of the latter 1 ton, or 5*t*. per fm. The tribute department continues to yield much as usual.

LLYWERNOG.—Jas. Lester, Oct. 28: This sett is situated to the east of Cefn Cwm Brynwy Mine, and to the west of Clara United; the lodes of the former run through its extent, but have not as yet been opened upon. There are three other east and west lodes running through this ground parallel with each other, and 8 to 10 fathoms only apart. Upon the centre lode large workings have in older times been carried on by means of a good main shaft, sunk to 30 fathoms, when large quantities of ore must have been returned, as the ground is taken away below for 50 fathoms in length, and up to surface. This shaft is in a good position to develop all the lodes. I am told there is a good course of ore left entire in the bottom level, although the workings were stopped on account of the low price of lead, and also from not having sufficiently powerful machinery to raise the water. The northern lode of these three has been opened upon at the depth of 25 fathoms below adit (from the shaft before-mentioned) for about 16 fathoms in length; the lode will here yield nearly 10 cwt. of ore per fathom. At the time we had pos-

sessions men were working upon this lode on tribute at 8*t*. per ton for dressed ore. Since then we have opened a cross-cut from the centre lode, and intersected thereby the north one, 8 fathoms above, or 15 fathoms from surface. Here also this lode will yield nearly 10 cwt. of lead per fathom, and it is whole or unbroken up to surface. The south lode is ranging about 10 fathoms on the other side; no workings have been done on this, and its value is unascertained. It was discovered by cutting out the foundation for the wheel-pit, where it yielded good stones of ore. Since these workings were done, an intermediate company attempted to unwater the mine by means of a 20-ft. water-wheel and a small lift of pumps, but such were wholly inadequate in power to effect the object, as the water could not thereby be drained below the 24 fm. level. The purchase you have made of the Bodcawl wheel, which is 40 feet in diameter and 4 feet breast, equal to new, is sufficient to unwater the present workings, and to open the mine below to a very considerable depth, as well as drive a full-sized drawing-machine to haul stuff to the surface, and to work a good pair of rollers to crush the ore. For these objects we have a large reservoir, fed by many mountain streams, which will enable the mine to be expeditedly and very cheaply explored by water-power. We have a good parcel of lead ore piled at surface, and for satisfaction as to its quality a sample of it was assayed by Mr. Charles Low last week—the produce is certified to be 69*t*. per cent. of lead, and 13 ozs. 7 dwt. 10 grs. of fine silver per ton of ore. The mine is by the side of the main turnpike-road from Llanidloes to Aberystwith, and 10 miles east of the latter place, so that the cost of shipment of the ore will be very light. I have every reason to believe that when the new machinery is erected and we are getting on with it as fast as possible, we shall very soon prove that Llywernog is a first-rate property.

LONG RAKE.—Oct. 20: The lode in the engine-shaft rather improves as we sink. We have commenced to sink a winze below the 48 about 10 fm. east of engine-shaft on the lode, which is producing good dressing work. The 48 east has not produced so much lead since last report, but is again looking well, and I think a few days more will open a lode to value. The stopes over this level are as usual. At Pwll Melyn the tributaries have worked the run of ore below the present bottom level, and there are means to go deeper with the present small shaft; this part of the property deserves a trial, independent of Long Rake, but there must be a new shaft. The dressing goes on as usual, and we are preparing a parcel for next sale. Everything is progressing towards opening up a profitable property.

NANTY.—Oct. 28: The lode at the 14, going north of boundary, is 5 ft. wide, with a promising appearance, yielding good stones of ore at times. We have set a new stopes over this level, 6 fms. north of boundary, in Sir Watkins' land; and the lode at this point is from 4 to 5 feet wide, yielding 10 cwt. of ore per fm. The lode in the stopes over this level, 34 fms. north of long rise, is 4 feet wide, producing 12 cwt. of ore per fm. The stopes over the same, 27 fathoms north of long rise, is in a lode about 6 feet wide, worth 15 cwt. of ore per fm. The lode in the stopes over the same level, 20 fathoms north of long rise, yields from 11 to 12 cwt. of ore per fathom. The winze below the 14 is now communicating to the rise over the shallow adit, which has well ventilated that part of the mine. The lode at the roadway level, driving north of the boundary, is from 4 to 5 feet wide, with a promising appearance, showing strong spots of lead ore, and likely to improve again shortly. The deep adit, driving north of boundary, is still in a strong position, and the part we are carrying is producing good stones of ore at times; this end is now extended about 30 fms. north of boundary. The dressing, &c., with all other things here, are going on regularly. We shall sample 35 tons of good quality ore on Nov. 4.

NEW CROWN HILL.—R. Hancock: The lode in the 15 is improving for lead this last week; that is, the tribute pitches. We are sinking a winze in the bottom of the 22, on the course of the lode, for the purpose to communicate with the 25 for ventilating and laying open the lode for stopes; this is working by four men. We have also four men rising in back of the 35 against the winze which is sinking below the 22 to lay open ground in back of the 35 as soon as possible. Before this is done we cannot take away this lode with speed; we have in this rise a good lode, and the end is looking well and likely to improve as it is extended east; we have four men driving this end. The 35 is driven about 16 fathoms east of the engine-shaft, and it will take about six months from this time to get into the run of ore ground which is in the 35. When this is fully laid open, I have no doubt but there will be a large quantity of paying ground to come away. I never saw the mine looking so well as it is at present, and I fully believe it will improve; but you must see that we cannot take away this ground to advantage before it is fairly ventilated; this will take some little time to do. The engine-shaft is sunk 10 fathoms below the 55. We shall raise about 4 tons of lead for the next sale.

NORTH BASSET.—T. Glanville, G. Davey, Oct. 29: The flat-rod shaft is sunk 7 fms. below the 142; the lode in its present bottom is 3 feet wide, consisting of spar, mudi, and copper ore. The 142 is extended 28 fathoms east of the flat-rod shaft, the last 8 fms. have been driven on the north part of the lode, which is 1 ft. wide, chiefly composed of spar; the men are now engaged driving a cross-cut to intersect the south part, which we expect to meet in 6 or 9 feet driving. In the 132, west of the cross-cut, the lode is 2 feet wide, producing good stones of tin. In the 102, west of Lyle's shaft, the lode is 2 feet wide, 1*t*. ft. wide, interspersed with yellow copper ore. This level is about 4 fathoms deeper than the bottom of Grace's shaft, and there are now about 26 fathoms to drive to get under its perpendicular; we have put two additional men in the end to drive as fast as possible, as it is very important to reach the point above referred to, for the lode in the shaft has a very promising appearance. There is still water in the shaft, but it is decreasing as the end approaches. In the 92, east of Grace's shaft, the lode is 2 feet wide, producing good stones of copper ore. In the winze under the 92, east of Grace's shaft, the lode is 2 feet wide, producing 1 ton of ore per fm. In the winze under the 92, west of the shaft, the lode is 18 in. wide, yielding 1 ton of ore per fm. In the 82 west the lode is 1 ft. wide, producing stones of copper ore. In the 62, west of Grace's shaft, the south lode is 2*t*. ft. wide, composed of spar, prian, and occasional stones of copper ore. In the winze under the 30 the north lode is 18 in. wide, composed of spar, mudi, and copper ore.

NORTH BULLER.—J. Delbridge, Oct. 26: I beg to hand you with this report the 75, west of the engine-shaft, being extended west from the engine-shaft 7 fms. 2 ft. 3 in. The lode is from 6 to 10 in. wide, composed of mudi and tin, and at times yielding rich stones. We have to drive from this point about 11 fathoms to be under the perpendicular, from the run of the cross-course at surface. In the 43, east of King's shaft, the lode is from 6 to 14 in. wide, yielding mudi and spots of rich copper ore. In King's shaft, sinking below the 43, which is 8 fms. 2 ft. 10 in. below the level, the ground is favourable; the lode is from 6 to 15 in. wide, yielding rich stones of copper ore. We have set the shaft to sink to the 50 for 12*t*. per fm. We hope in the present month to complete the shaft to the 55, when a plat will be cut and sunk to the 65 with all speed.

NORTH FRANCES.—F. Pryor, J. Moyle, Oct. 29: In the 38, driving west of engine-shaft, we have 2 ft. more to drive west for the plat, then we shall intersect the north side to prove the tin lode. The lode in the 70 end, east of Hunt's shaft, is 2*t*. ft. wide, consisting of quartz, killas, and mudi, with occasional stones of ore. There is no material alteration in the 70 cross-cut, south of shaft. The lode in the 60 west, east of Hunt's shaft, is 2

ing; and the same course will, I venture to hope, be pursued by the company in the further development of the mine. The productive ground laid open will now come away to the best advantage, and the recent thorough ventilation of the main and south lodes will greatly facilitate future operations.

PROGRESS OF SLATE COMPANIES.

The slate trade continues to attract its share of public attention, and, from the highly satisfactory position of the market, no doubt is entertained that a large return will be secured upon outlays made in this direction. Amongst the new companies introduced to the public within the past few weeks may be mentioned the Dulau Slate and Slab Company, which has been constituted on the limited liability, with a capital of 18,000*l.*, in 27 shares, for working an extensive quarry at Llwyngwern, in North Wales. Stocks are low, and the market price of slates of all descriptions is 25 per cent. higher than it was two years since, although it is considered that the maximum is not nearly reached. There are several slate quarries and lead mines in successful operation in the neighbourhood, but the Dulau claims a material advantage over them, inasmuch as it is from three to five miles nearer the town of Britain in the course of the ensuing year. The property has been secured by the company for 300*l.* (the royalty being 1*l*-15*l*), and Mr. C. Spooner, of Porthmadog, has reported that slates and good slabs in great quantities can be procured.

EAST DELABOLE AND BENEY SLATE QUARRY.—With a view to the formation of a company for working this quarry, the property has been inspected and reported upon by Mr. T. M. Penalluna, and a circular has been issued to prepare the way for its introduction. It is said that the quarries can be sufficiently opened to employ 500 men, with a capital of 5000*l.*, besides the purchase-money, the amount of which is not stated. It is estimated that 25 per cent. per annum will be realised, and that, in addition to the 500*l.* working capital, not more than 600*l.* worth of machinery will be required.

BRITISH SLATE COMPANY.—On Wednesday a special general meeting of shareholders was held, when a confirmatory resolution was passed, to the effect that the company's operations should be confined to the Rowlin and Penlan Quarry. The capital of the company was reduced to 25,000*l.*, and the unaliotted portion divided into shares of 1*l*. each. It was also agreed that, in order to amalgamate the capital, and strengthen the position of the company, holders of original paid-up shares of 1*l*. each, should have the option of converting such shares into shares of the new issue, by receiving one new share of 1*l*. for five of the original 1*l*. shares, the remaining 5*l*. per share being subject to calls in accordance with the amended prospectus (which the directors are empowered to issue), and that interest at the rate of 5 per cent. per annum shall be paid on the 4*l*. per share thus paid in advance, such interest to accrue from the commencement of operations at the works. Existing shareholders in the company, who shall convert their original shares of 1*l*. each into shares of the new issue of 1*l*. each, shall be entitled to dividends upon the calls of 4*l*. paid in advance, in addition to the interest thereon. So soon as these arrangements are carried out, operations at the works will commence forthwith, and having but about 4 yards of surface to remove, a portion of which is suitable for manufacture into slabs and slates, it is anticipated successful results will soon be realised.

MAEN OFFERIN.—This quarry has commenced returning slates, and it is said that profits will arise almost as soon as the plant is completed. The capital account is not yet closed.

GREAT MOELWYN.—The manager has just returned from an inspection of the property. The tramways and inclines are being proceeded with. A trial has been made in the northern vein, in which the slate has been proved of an excellent quality. In No. 1 level the quality of the slates is good, and the quantity large, so much so that the directors are about to consider the propriety of abandoning all the upper levels, confining their operations to the lower levels—Nos. 1 and 2. The houses for the workmen, &c., are being constructed with all speed.

LOWER TALDRWS.—The works are progressing, and, as the development of the quarry advances, the appearances presented continue satisfactory.

CRICCHET.—The indications are still improving. During the past week, in getting further into the vein, slates superior to any yet produced from that quarry have been obtained. According to Mr. Nightingale, the indications still improve.

SLATE MOUNTAIN.—A box of fine slate has just reached London from this quarry, said to be equal to some of the best specimens of the Festiniog district.

SUPERHEATING—ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.—At the monthly meeting of this association, on Tuesday—Mr. W. Fairbairn, President, in the chair—Mr. Fletcher, chief engineer, presented his report, from which the following are extracts:—In my last I called attention to the application of steam jackets to cylinders, pointing out their importance as an agent "for effecting economy in the use of steam." I now wish to allude to a kindred and equally important subject—that of superheating; the economy derived from which has now become established by general experience, and in marine engines has, in many cases, effected as high a saving as 30 per cent. I scarcely anticipate such a result as this from its application to Lancashire mill engines; still I am confident that a very considerable saving would be effected, while, at the same time, the vacuum would be improved, the temperature in the hot wells reduced, and less injection water required, which to steam users having cooling ponds of limited area would be most important. These results are mainly due to the prevention of condensation and re-evaporation on the internal surface of the cylinder, as explained in my last report relative to the action of the steam jacket; so that the effect of superheating the steam, or coating the cylinder with a steam jacket, is very similar. The application of superheating has been sadly bugbear. It has been reported that the use of superheated steam would destroy the surface of the cylinder, piston, and slides, by preventing lubrication; also that it would corrode the metal; that it was highly explosive, productive of great pressure, and altogether dangerous and difficult to deal with. Actual experience, however, has proved that these objections are entirely visionary, and I have only within the last few days been assured by the superintending engineer of all the engines and boilers in the large fleet of the Peninsular and Oriental Steam Navigation Company, where superheated steam is now and has for some time past been extensively employed, that no difficulty is experienced in its use, and no alteration whatever is required in the old engines beyond the introduction of a slightly better description of packing for the glands, while not a trace of corrosion has been found. It only now remains, therefore, for manufacturing engineers of this district to bring out a simple and efficient superheating apparatus, adapted to mill-engine boilers, by which they will not only benefit themselves, but at the same time render essential service to the steam users of the district. I am glad to say that one of our members is now laying down a superheating apparatus, and, as soon as I have an opportunity of doing so, I shall be happy to state to the members of the Association the results of its actual working as applied to the boilers of an ordinary mill-engine, and to assist in the general introduction of this system amongst all our members, by affording any other information I am able. I would state, however, in the meantime, that it is found most advantageous to superheat the steam to about 100° above the temperature of plain steam, when no difficulty is found in lubricating; also, that the utmost care must be taken in maintaining the temperature of the steam when once it has been superheated, or the virtue will be lost before it gets to the engine. I found in one case that, although the temperature, immediately on leaving the superheater, was as high as 600°, yet it had fallen nearly to 300° on its arrival at the engine. I understand that some parties entertain the idea that superheating may be advantageously applied where steam is used for heating purposes. I am convinced, however, that such would not be the case, and that disappointment will inevitably ensue wherever superheating is adopted with this view.

THE PARAFFIN OR MINERAL OIL SAFETY-GAUGE.—Mineral oils, manufactured from a great variety of bituminous substances, and sold under various trade names, but popularly and frequently erroneously, called paraffin oils, have been universally adopted by the million as the cheapest and best illuminating materials provided for their use. The annual consumption in these islands amounts to several millions of gallons, and the manufacturers are unable to keep pace with the rapidly increasing demand. In all parts of London, and in the provincial towns and villages, announcements may be seen in shop windows of "paraffin oil sold here," accompanied by a goodly array of paraffin lamps, ticketed at very low prices. Lamp-makers have exercised their ingenuity to produce an endless variety of burners for these oils, but many of them are very defective in principle, their chief fault being that they do not admit air enough, or in the right direction, to secure perfect combustion of the heavy gases generated from the oil, in addition to which the wicks employed are not unfrequently of very inferior quality and make, and not adapted to the lamps in which they are used. A lamp combining all the requisite qualities for the perfect combustion of mineral oils of high specific gravity is yet a desideratum. The public provided with lamps of bad construction are apt to attribute the defective light, and smoky gases given off, to the quality of the oil employed, and apply to the dealers for a "very light oil," unaware that the defects in reality belong to the lamp and wick alone. But very light paraffin or mineral oils cannot be used without incurring considerable danger, if from any accident a lighted match, or candle, be brought in contact with them, as was painfully shown at the inquests recently held upon the remains of two persons who lost their lives through the explosive character of the light oil they were using. The majority of consumers of the oils in question, unacquainted with their peculiar qualities, are unable to distinguish between the dangerous and the safe. We have much pleasure in drawing the attention of our readers to a very simple but effective instrument advertised in our columns this day, "The Paraffin or Mineral Oil Safety-Gauge," made for, and sold by, the Asphaltum Company (Limited). It is a small glass hydrometer, with a scale graduated to indicate the specific gravity of mineral oils between .820 and .850, or weighing 8*l*-10*l*, to .8*l* per gallon. The specific gravity of .820 is considered to be safe; if below .820, the oil should not be purchased, as being too light and dangerous; whilst .850, with the lamps usually employed, is the limit of a good burning oil. This is valuable information for the public, and the "safety-gauge" is sold at so low a price as to be within the reach of all classes.

CARBURATING GAS.—Mr. E. C. Shepard proposes to improve the illuminating power of gas by causing the said gas to impinge upon a carburing fluid before reaching the burner. The carburing fluid is supplied in a bulb, and the burner is so arranged that the gas cannot reach the burner until it has been acted upon by the fluid.

LOCOMOTIVE FIRE-BOXES.—Instead of using rolled copper plates for the construction of fire-boxes, Mr. A. Parkes, of Birmingham, proposes to construct a suitable mould of the ordinary founders' sand, and cast the fire-box with or without the openings for receiving the tubular flues. When copper, with a little phosphorus, is used there must be lime added to the sand, and even in other cases he prefers sand and lime to sand alone. Sometimes he substitutes cast-steel for cast-copper, preferring steel with a little phosphorus added. The surfaces may be hammered after casting.

FIRING GUNPOWDER WITH COMPRESSED AIR.—Mr. C. Hanson, Haymarket, has patented an improved method of igniting gunpowder. The invention consists in the use of air compressed or forced into a chamber through a small tube opening into the chamber in which the gunpowder is contained. Caps, fuses, and igniting compositions are thus effectually dispensed with.

GOVERNMENT INSPECTION OF COAL MINES.—Now ready, price 6*d.*, a Second Edition of the NEW MINE INSPECTION ACT; to which is appended the ACT FOR THE REGULATION AND INSPECTION OF MINES, which came into operation on Jan. 1.—To be had from the *Mining Journal* office, or through any bookseller in town or country.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, November 1, 1861.

COPPER. £ s. d.		BRASS. Per lb.	
Best selected...p. ton	105 10 0	—	Sheets 9d. 9 <i>l</i> 4 <i>d</i> .
Tough cake.....	102 10 0	—	Wire 9 <i>l</i> 4 <i>d</i> .
Tile	102 10 0	—	Tubes 10 <i>l</i> 4 <i>d</i> .
Burns Burns	101 0 0-102 0 0	—	
Coopalo	—	FOREIGN STEEL. Per Ton.	
Copper wirep. lb.	9 1 2	Swedish, in kegs (rolled) —	
ditto tubes	9 1 1 <i>l</i> 4 <i>d</i>	" (hammered) 15 0 0	
Sheathing & bolts	9 0 11 <i>l</i> 4 <i>d</i>	Ditto, in faggots 15 10 0	
Bottoms	9 0 1 <i>l</i> 4 <i>d</i>	English, Spring 18 0 2 <i>l</i> 3 0 0	
Old (Exchange)	9 0 10 0	Bessemer's Engineers Tool 44 0 0	
IRON. Per Ton.		" Spindle 30 0 0	
Bars, Welsh, in London	6 5 0	QUICKSILVER 7 0 0 p. bottle	
Ditto, to arrive	6 0 0		
Nail rods	7 0 0		
" Stafford, in London	7 0 0		
Hoops ditto	7 5 0-8 0 0		
Sheets, single	9 0 0-9 10 0		
Pig, No. 1, in Wales	3 0 0-4 0 0		
Refined metal, ditto	4 0 0-5 0 0		
Bars, common, ditto	5 0 0		
Ditto, merchant, in Tees	6 10 0		
Ditto, railway, in Wales	5 0 0-5 2 6		
To arrive	10 10 0-11 0 0		
Pig, No. 1, in Clydes	2 8 0-2 10 0		
Ditto, f. o. b. in Tees	—		
Ditto, forge, f. o. b. in Tees	—		
Staffordshire Forge Pig	3 10 0-8 12 6		
Welsh Forge Pig	—		
LEAD.			
English Pig	20 0 0-21 10 0		
Ditto sheet	20 10 0-21 0 0		
Ditto red lead	22 0 0		
Ditto white	28 10 0-30 0 0		
Ditto patent shot	22 10 0-23 0 0		
Spanish	19 0 0		
		At the works, 1 <i>l</i> . to 1 <i>l</i> . 6 <i>d</i> . per box less.	

REMARKS.—Our market exhibits more firmness, an increased activity is visible in the demand for nearly all descriptions of metals, and prices are for the most part inclined to go higher. The American trade, though rather better than for some time past, is comparatively *nil*, but the demand for the French markets is rapidly increasing. Our Indian trade has improved, and the cheapness of money encourages speculative operations, so that the immediate resources of the metal market are of a satisfactory character, and likely to promote the advancing tendency of prices.

COPPER.—The rise in fixed rates has caused this market to become more quiet, buyers not liking to pay enhanced rates for copper which was offering under price before the rise, and sellers holding for the advanced rates. The actual demand for English descriptions just now is not first-rate, and the smelters' advance was a measure prompted more by anticipation of a better enquiry and the high rates they were paying for ores, than by any pressure in the market at the present time. Foreign is in fair enquiry, and business doing in Burra Burra at 101*l*. to 102*l*; Kapunda, 102*l*; Spanish, 91*l*. to 94*l*, according to brand; Chilli, 91*l*. in Liverpool. In yellow metal an ordinary amount of business is doing, but sellers are still unable to obtain anything like full rates.

IRON.—Railway bars continue without much improvement in the demand for present delivery, but some difficulty is experienced in placing orders for spring shipment. Merchant bars are in tolerably good request at 6*d.*, f. o. b. in London. Newcastle bars same price. Staffordshire makes are improving very slowly, the demand is still anything but brisk, and only best qualities are saleable. Swedish bars are in better request and higher in price; ordinary specifications are now quoted 11*l*. 10*s*. to 12*l*. Scotch pigs have slightly fluctuated during the week between 49*s*. 6*d*. and 50*s*. market closing at 49*s*. 6*d*. for mixed numbers.

LEAD.—There is a manifest improvement in the demand for English pig, and sellers are asking enhanced rates. Ordinary soft quality is realising 20*s*; best brands, 21*l*. 5*s*. Sheet and shot not much enquired for. Spanish pig, 19*s*.

SPELTER.—A large speculative business is still transacting in this metal, and prices have advanced to 19*l*. 5*s*. for cash prompt, and 19*l*. 10*s*. for arrival on extended prompt. It is worthy of notice that an ominous increase is visible in the stocks here, which now amount to 3394 tons, against 3235 tons a month ago, having thus increased nearly 700 tons during the past month; this will tend to weaken the market.

ZINC.—Zinc firm at 24*s*.

TIN.—The market is still very quiet, and scarcely anything doing. In foreign, Straits is quoted 116*l*. 10*s*; Banca, 117*l*. 10*s*.

STEEL.—A fair demand exists for Swedes keg at 15*l*; other kinds dull.

TIN-PLATES.—No improvement to notice.

LIVERPOOL, Oct. 31.—Our market continues in a steady position. Manufactured iron is firm, and the demand gradually increasing. Scotch pigs are firm, with an advancing tendency. Copper was raised 4*d*. per lb. on the 25th inst., making the present price 11*l*. 14*s*. Block tin quiet. There is more activity in tin-plates, owing to the American buyers coming forward; and cokes are stiff at 21*s*. to 21*l*. 3*d*. f. o. b. Lead without change.

The price of copper has advanced, and metals generally are in demand, at good prices, but the MINING SHARE MARKET continues in a very dull and depressed state, and the little business that is doing is chiefly of a speculative character among the dealers in the market. At about this time of the year a more active business generally commences, but there are no signs of it at present, and, in consequence of the general stagnation, quotations daily become lower in those mines in which there is no business stirring, and for the most part they become merely nominal. The shares mostly dealt in since our last have been Wheal Seton, East Caradon, Hingston Down, West Caradon, Stray Park, Wheal Trelawny, Drake Walls, South Tolgs, Wheal Uny, Bassett, Tolvadden, South Bassett, North Downs, North Treskerby, East Carn Brea, South Carn Brea, North Frances, East Russell, Cook's Kitchen, Condurrow, Grambler and St. Aubyn, Lady Bertha, North Bassett, Bottle Hill, Redmoor, Rosewall Hill and Ransom United, Margaret, Providence Mines, East Grenville, Unity, Wheal Crebor, New Frances, Tincroft, Tamar Consols, Rosewarne United, &c. The accounts show a loss on two months' working of 16*l*. 14*s*. 1*d*.

tin.—The closing quotations for shares in new undertakings were:—Ocean Marine Insurance, 4*l*, 5*l* prem., being again higher; Thames and Mersey Marine, 1*l*, 1*l* prem.; Universal Marine Insurance, 1*l*, 1*l* dis.; London and Provincial Marine, 1*l*, 1*l* dis.; Commercial Union Fire, 1*l* dis. to par; Mercantile Fire have improved, on a rumoured amalgamation with an old-established northern office; Oriental and General Marine, 1*l* prem.; London and Lancashire Fire Insurance, 4*l* to 4*l* prem.; Santa Barbara Gold Mining Company, 1*l* prem.; and Asphaltum Company, 1*l*, 1*l* prem. The list of applications for shares in the London and Lancashire Fire Insurance Company will be closed on the 12th inst.

On the Stock Exchange an extraordinary amount of business in Foreign and Colonial Mining Shares has been transacted during the week. The following prices were officially recorded in British Mining Shares:—East Bassett, 7*l*; Hingston Down, 4*l*, 4*l*, 4*l*; East Caradon, 2*l*; Herodsfoot, 3*l*; North Downs, 4*l*. In Colonial Mining Shares the prices were:—East Mountain Copper, 1*l*; Kapunda, 2*l*; North Rhine Copper of South Australia, 1*l*; Port Phillip, 1*l*; Worthing, 1*l*; General, 2*l*. In Foreign Mining Shares the prices were:—Cobre Copper, 34*l*, 35*l*; East del Rey, 1*l*, 1*l*, 1*l*; Dun Mountain Copper, 1*l*; North Rosker, 1*l*; Dun Mountain Copper, 1*l*; North Rosker, 1*l*; Dun Mountain firm, at about 1*l</i*

this company being their Wicklow Lead Mines, the produce from which is not likely to be injuriously affected by warfare.—CONNORREE shares have receded from the extraordinary price of 60s. in December last, to 31s. 6d. sellers. The staple produce of this mine is sulphur, of which but little can be raised at present. Most of the shares in this concern have changed hands at much higher rates, and holders are unwilling to sell at a sacrifice; but buyers are cautious, and a further fall may be expected, should holders lose their confidence.—GENERAL MINING shares are quoted at 5s. 10s., and well held. The directors are sanguine of success, but the realisation is yet in abeyance.—CARYSFORT shares are in the price list at 8s. 6d., but the public are shy of them. A system of costeaving has been carried out on this property, the soundness of which is much questioned by practical men of long experience. The fast rock having been only slightly touched at a high elevation of the hills, it is supposed that whatever good lodes there may be have never been seen, and that the indications met with are only those of the so-called "flyers," which will not hold out in depth. Perseverance may turn the scale against these sombre forebodings, but that will require a considerable further outlay.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the nine months ending Sept. 30, 1861; and also as compared with the nine months ending Sept. 30, 1860; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE NINE MONTHS ENDING Sept. 30.			
	1860.	1861.	Decrease.
Copper and calum	£2,533,567	£2,744,832	—
Habors and cutlery	2,768,220	2,495,391	£272,829
Machinery:—			
Steam-engines	£855,491	£943,258	—
Other sorts	1,785,835	2,644,326	858,491
Total	£7,946,113	£8,359,944	—
Metals:—Iron—Pig	£716,911	£756,613	—
Bar, bolt, rod	1,801,835	1,395,466	—
Railway	2,654,038	2,413,304	—
Wire	182,831	161,989	—
Cast	658,049	499,920	—
Wrought	2,508,951	8,525,315	5,016,364
Steel	704,010	524,196	179,814
Copper—Unwrought	553,680	358,624	—
Sheet, and yellow metal	1,403,773	1,076,112	—
Wrought	178,718	2,136,171	189,221
Brass	146,800	119,661	27,239
Lead—Pig	402,671	314,594	—
Ore—Litharge	124,006	526,677	112,986
Tin	276,400	275,835	565
Tin-Plates	1,203,418	655,275	548,143
Grand total	£21,464,904	£19,371,263	£2,780,301
Less increase—Coals and calum, 211,265; machinery, 475,395			686,660
Total decrease			£2,093,641

At Redruth Ticketing, on Thursday, 3553 tons of ore were sold, realising 23,470. 13s. 6d. The particulars of the sale were—Average standard, 132. 19s.; average produce, 7; average price per ton, 6s. 12s.; quantity of fine copper, 250 tons 1 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Oct. 3.	3704	£109 8 6	13 1-16.	£12 1 6	£20 9 4
" 10.	1167	111 2 0	13 5 6	12 15 6	93 0 0
" 29.	1146	117 5 3	10 5 16.	9 17 6	96 0 0
Compared with the sale of last week, the advance has been in the standard 14s., and in the price per ton of ore about 10d. Compared with the corresponding sale of last month, the advance has been in the standard 17s. 10s., and in the price per ton of ore about 2s.					

At the Swansea Ticketing, on Tuesday, 1146 tons of ore were sold, realising 11,331. 6s. 6d. The particulars of the sale were—Average standard, 117. 5s. 3d.; average produce, 10 5-16; price per ton, 9s. 17s. 6d.; quantity of fine copper, 118 tons 2 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Oct. 1.	1720	£109 8 6	13 1-16.	£12 1 6	£20 9 4
Oct. 15.	1167	111 2 0	13 5 6	12 15 6	93 0 0
Oct. 29.	1146	117 5 3	10 5 16.	9 17 6	96 0 0
Compared with last sale the advance has been—in the standard, 3s.; and in the price per ton of ore about 6s. 2d. Compared with the corresponding sale of last month the advance has been—in the standard 7s., and in the price per ton of ore about 7s. 3d. Of the 1146 tons of copper ore sold on Tuesday, 743 tons were from British mines, which gave an average produce of 8s., and sold at an average standard of 120. 0s. 6d. = 87.5s. 0d. per ton of ore. The remaining 403 tons were foreign ores, which gave an average produce of 13s., and sold at an average standard of 113. 7s. 6d. = 127. 18s. per ton of ore. On Nov. 12 there will be offered for sale 1485 tons of ore and regulus, from Cobre, Knockmahon, Berehaven, Italy, Genoa, Valencia, Seville, Almeria, Turkey, Australia, and elsewhere.					

The following dividends have been declared during October:—

Mines.	Per share.	Amount.
Wicklow	£2 0 0	£10,000 0 0
West Clifford and Consols	10 0 0	£10,000 0 0
East Caradon	9 12 6	£3,840 0 0
West Seton	7 0 0	£2,800 0 0
Dolcoath Valley	7 0 0	£2,506 0 0
Marke Valley	0 5 0	£2,250 0 0
Herodsfoot	1 15 0	£1,793 0 0
Tincoff	0 5 0	£1,500 0 0
Wheat Basset	2 0 0	£1,024 0 0
Wheat Leadcot	0 4 0	960 0 0
Lisburne	2 0 0	800 0 0
Cwm Elin	0 15 0	650 5 0
Wheat Jane	1 0 0	512 0 0
Mount Pleasant	0 10 0	320 0 0
Total		£33,954 5 0

At Wheal Jane meeting, on Oct. 24, the accounts for July and Aug. showed—Ore sold and sundries, 2928L. 12s. 1d.—Balance last audit, 947. 12s. 1d.; mine costs, merchants' bills, and sundries, 2012L. 18s. 7d.; leaving credit balance, 821L. 1s. 6d. A dividend of 51s. 17s. per share was declared, and 309L. 1s. 6d. carried to credit of next account. Capt. Giles and Bray reported upon the various points of operation. Their tribute department is looking well for tin; they have 20 pitches, varying from 2s. 6d. to 13s. in 12. They have a large stock of muriate on hand, upon which the tribute proportion is paid.

At Great Wheal Fortune meeting, on Oct. 23, the accounts showed—Balance last audit, 527L. 19s. 1d.; tin sold (deducting 18s. 9s.), 4822L. 19s. 5d.; mine costs, merchants' bills, and sundries, 425L. 7s. 1d.; leaving credit balance, 500L. 6s. 1d. A call of 5s. per share was made. Capt. Pryor, Daniel, and Hosken reported that they have several thousand sacks of tinstuff at surface unstamped, containing about 14 tons of tin, the whole of which will not be returned in the ensuing quarter, in addition to the stuff being raised. The sales of tin are expected to be about 80 tons.

At the Pen-an-drea United Mines meeting, on Tuesday (Mr. Charles Martin in the chair), the accounts for the eight months ending August showed—Balance last audit, 1058L. 19s. 10d.; mine costs, merchants' bills, and sundries, 13,063L. 16s. 5d. = 14,122L. 16s. 3d.—Calls received, 1044L. 18s. 7d.; surplus realised on the former estimate, 113L. 6s. 3d.; ore sold, 10,918L. 10s. 6d.; leaving a debit balance of 2049L. 1s. 6d. A call of 5s. per share was made. Mr. George H. Cardozo was appointed secretary in the room of his father, deceased. Capt. Tregay, Delbridge, and Thomas, reported upon the various points of operation in the mine.

At Clara United meeting, on Wednesday (Dr. A. Bridge in the chair), the accounts showed—Call at last meeting, 500L.; advances, 91L. 0s. 1d. = 591L. 0s. 1d.; Working cost, 289L. 15s. 7d.; part purchase of sett of old company, 164L. 12s. 4d.; arrears of calls, 137L. 10s.; cash in hand, 4L. 1s. 2d. Reports of a most satisfactory character were read, and the announcement was made that 20 tons of lead would be sampled in a fortnight, and that regular sales might be looked for, from 12 fms. of whole ground between the 20 and 32, opened and proved for some considerable length. Confirmatory resolutions were passed, and a call of 2s. 6d. per share (500L.) made.

At Wheal Damsel meeting, on Tuesday (Mr. Dunsford in the chair), the accounts showed a debit balance of 306L. 13s. A call of 30s. per share was made. Details in another column.

At the Wheal Anna meeting, on Oct. 17, the accounts for May, June, July, and Aug. showed—Mine cost to end of Oct., 1860, merchants' bills, &c., 341L. 14s. 2d.; Nov. and Dec., 112L. 7s. 1d.; Jan., Feb., March, and April, 233L. 16s. 2d.; May, June, July, and Aug., 141L. 18s. 1d.; merchants' bills to end of Aug., 23L. 6s. 2d.; doctor's pence, 18s. = 85L. 1s. 10d.—Cash of late purser, 32L. 6s. 4d.; blonde, &c., 249L. 5s. 11d.; call, 412L. 11s.; leaving debit balance, 159L. 18s. 7d. A call of 2s. 6d. per share was made. Capt. Oats' relinquishment of the management of the mine having been accepted, Capt. S. Michell was appointed manager, at a salary of 2L. 2s. per month. The purser was instructed to take such steps as might be necessary for the disposal of certain shares and recovery of costs through the Vice-Warden's Court. The meeting presented its unanimous thanks to Capt. Oats for his past services. A special meeting was convened for Saturday last, to take into consideration the propriety of subdividing the shares, at which the resolution was negative. The report of Capt. W. H. Reynolds stated the present indications led him to believe that large deposits of silver-lead would be found below the blonde, and he advised the erection of a small steam-engine to drain the mine to the bottom, where cross-cuts should be extended to the various lodes, especially that now so productive at the adit, and there appeared every reason to believe a valuable discovery must soon be made. A report from Capt. W. Tom, of Wicklow Mines, Ireland, was also read, which was of a satisfactory character. Capt. W. Tonkin inspected the mine on Oct. 25, and after giving a statement of the pitches, &c., he says there are two pitches set, one at 12, and Captain Tonkin has taken the dressing of

the ore at 3s. in 12., to be made fit for market, and concludes by stating, "I can assure you that I never saw a much prettier lode in my life."

At the Hawkmoor Mine meeting, on Tuesday (Mr. Charles Martin in the chair), the accounts for the seven months ending August showed—Balance last audit, 633L. 14s. 6d.; mine costs, merchants' bills, and sundries, 2352L. 3s. = 2985L. 17s. 6d.—Calls received, 527L. 17s. 16d.; copper ore sold, 1498L. 17s. 4d.; leaving debit balance, 759L. 2s. 4d. A call of 2s. per share was made. Captains Joseph Richards and J. T. Phillips reported that on Friday last they sampled 31 tons of average quality copper ore.

At the Bedford Consols meeting, on Wednesday (Mr. J. Rowlands in the chair), the accounts for the three months ending August showed—Mine cost, merchants' bills, and sundries, 480L. 8s. 1d.—Balance last audit, 16L. 1s. 11d.; calls received, 200L.; copper ore sold, 115L. 4s.; leaving debit balance, 9L. 3s. A call of 8s. per share was made. Capt. Mitchell reported that he calculated they had about 40L. worth of copper ore broken, dressed and undressed. He recommends the present points of operation to be kept on with the present number of hands, until it is thought advisable to communicate with Sims's shaft.

At the Treloethow Mine meeting, on Thursday (Mr. Brightman in the chair), the accounts to the end of August showed a debit balance of 1935L. A call of 8s. per share was made. Details in another column.

At South Wheal Kitty meeting, on Oct. 22, the accounts for the six months ending Aug., showed—Balance last audit, 292L. 12s. 2d.; mine cost, 396L. 2s. 8d.; merchants' bills, 82L. 6s. 2d. = 771L. 1s. 1a.—Calls received, 500L.; leaving debit balance, 271L. 1s. A call of 8s. per share was made. Captains S. Mitchell, J. Birnase, and S. Mitchell, jun., reported upon the various points of operation. The mine had also been inspected by Captain E. Blewett, who recommended the purchase of a 20-in. cylinder-engine, which would admit of the development of the mine to a fair depth.

At West Wheal Jane meeting, on Oct. 22 (Mr. J. Purssey in the chair), the accounts for August showed a debit balance of 16L. 1s. 2d.; mine cost, 421L. 8s. 2d.; merchants' bills, and sundries, 235L. 1s. 2d.; old materials sold, 9L. 7s. 6d.; leaving debit balance, 89L. 12s. 5d. A call of 2s. per share was made. Capt. Tonkin and Smith reported that the tin pitches were looking well. Since the last meeting they have erected a stampas-axe of 12 heads, and have also improved the dressing-floors. They have 140 persons employed.

At the Brynford Hall Mine meeting, on Tuesday (Mr. W. Page in the chair), the accounts showed a debit balance of 48L. 18s. 4d. A call of 8s. per share was made. The committee were re-elected. Details in another column.

At the Herward United Mine meeting, on Tuesday (Mr. W. Page in the chair), the accounts showed a balance in favour of the mine of 129L. 11s. 4d. Details appear in another column.

At the Pendeen Consols Mine meeting, on Tuesday (Mr. W. Bawden in the chair), the accounts for August and September showed a loss upon those two months' workings of 230L. 17s. 2d.; there was a balance of liabilities over assets of 162L. 19s. 6d. Details appear in another column.

At South Caradon Wheal Hooper meeting, on Wednesday (Mr. W. Bawden in the chair), the accounts for the three months ending Sept., showed—Balance last audit, 85L. 0s. 4d.; mine cost, merchants' bills, and sundries, 556L. 12s. 1d. = 641L. 12s. 2d.—Calls received, 628L. 16s. 2d.; leaving debit balance, 12L. 16s. 3d. A call of 4s. per share was made. Capt. W. C. Cock reported upon the various points of operation. He suggests that present operations be continued, and

WEST SILVER BANK MINING COMPANY

(LIMITED).

Incorporated in virtue of the 19th and 20th Vic., c. 47, and 20th and 21st Vic., c. 14.

Capital £18,000, in 6000 shares of £3 each. Deposit, £1 per share.

And the balance, if required, to be paid by instalments of not exceeding 6s. per share, of which thirty-one days' notice must be given for payment.

DIRECTORS.

JOSEPH COTTERELL, Esq., Waterloo Railway Terminus.

E. C. COCKCRAFT, Esq., Admiralty, Somerset House.

JOSHUA NUNN, Esq., American Consulate, 67, Gracechurch-street.

J. M. THISTLETON, Esq., Old Quebec-street, Portman-square, W.

ALBERT MILSTEAD, Esq., Ship Chambers, Tower-street.

BANKERS—Bank of London.

SOLICITOR—F. W. SWELL, Esq., 1, George-street, Mansion House, City.

CONSULTING ENGINEER—Capt. Matthew Francis.

SECRETARY—Mr. Thomas Spargo.

REGISTERED OFFICES,—224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

PROSPECTUS.

The West Silver Bank Mining Company has been formed for the purchase and effective working of one of the richest metallic properties in the county of Cardigan.

It is situated to the north of the Great Frongoch Mine, and to the west of Silver Bank Mine, the lodes of which are filled with rich lead, and close to the boundary pass into and through the West Silver Bank grant, which is in the heart of the dividend-paying mines of that productive county.

The property, which comprises an area of one mile square, is held under a license granted by Col. Powell, with a guarantee for a lease for 21 years, at 1-16th royalty or dues.

There are several rich lodes traversing its entire length, worth from £30 to £40 per fathom, within a few feet of the surface, and the estimated value of that already opened up to one point alone is upwards of £80,000.

The county of Cardigan has for several centuries been distinguished as one of the richest lead-producing districts in the kingdom. Immense fortunes have been made by the adventurers in the mines of the county, and fortunes are being realised in the present day to a great extent upon insignificant outlays. Men possessing colossal fortunes, which they have in their own time dug out of the Cardiganshire mines, still exist; others with noble fortunes have passed away. And it is well known that when an old Cardiganshire mine has been re-opened with capital, spirit, and good prospects, the adventures have been rewarded with fortunes for their investments.

There are few mines in the world more favourably situated than the West Silver Bank, with respect to its geological and mineralogical conditions. It is placed in the heart of all the dividend-yielding mines of Cardiganshire.

The convenience of carriage is unrivalled, the Aberystwith and Devil's Bridge turnpike road passing over the top of the lode. The carriage distance is between eight and nine miles to port, and when the Manchester and Milford Haven Railway is constructed the distance to the station will not exceed two miles.

The necessity for the erection of a steam-engine, and the heavy expense attendant upon one, will be avoided by the adoption of water-power, which is available to an unlimited extent.

The capital of the company is to be £18,000, divided into 6000 shares of £3 each, wherein £1 per share is to be paid at the time of subscribing, and the remainder or balance, if required, to be paid by instalments of not exceeding 6s. per share each, of which calls 31 days' clear notice is to be given for payment. It is not, however, expected that a larger sum than the £1 deposit will be required to place the mine in a productive position, and to yield from the produce a regular dividend to the shareholders.

This important and valuable property has been acquired by the promoters of the company for the sum of £7500, to be represented by and paid in 2500 shares of the capital of the company fully paid upon, thus leaving £10,500 nominal capital applicable to the mining operations of the company.

The undertaking will be under the immediate direction and management of a board of directors, to consist of not less than three nor more than seven members.

The mining operations of the company, which will be immediately commenced, will be prosecuted under the scientific and practical management of Capt. Matthew Francis, whose acquaintance with the district, aided by the rich discoveries he has already made, cannot fail to bring the company to great and eminent success.

The company is incorporated under the 19 and 20 Vict., cap. 47, and 20 and 21 Vict., cap. 14, to limit the liability of the shareholders to the amount of their respective subscriptions to the capital thereof, and the Articles of Association to define the system of management under which the company is to be conducted, and to contain provisions to secure and maintain a true and proper system of check and counter-check in its financial transactions, and in the issue and transfer of shares; and to confer power to the board of directors to commence the operations of the company, and to carry out and conduct the business thereof before the whole of the capital be subscribed, and when in its discretion it shall deem expedient.

REPORTS.

West Silver Bank, Sept. 25, 1861.—Having by request inspected this mine, I beg to forward the following report:—The property is situated near the ninth mile stone from Aberystwith, on the Devil's Bridge road, close under which there is a vein that passes from 4 to 5 ft. in width, 3 ft. of which is in a good course of lead ore, which will yield from 2 to 3 tons per fathom. There are several other lodes that traverse the sett, &c. Next week shall receive a full report.

ABSAJOM FRANCIS.

West Silver Bank, Sept. 27, 1861.—This mine is situated in the parish of Llanddanyd, Creiddyn, in the county of Cardigan, the property of Col. Powell, of Nantes. This extensive sett has a run of one mile on the course of three known lodes, one of which has been discovered on the surface, and is a strong healthy lead, possessed of every indication, congenial for the bearing of lead ore, carrying with it a branch or lode of ore from 9 in. to 1 ft. wide, and I must say I never saw a finer looking lead in Cardiganshire. In fact, when you take into consideration the situation of the mine, and the advantages it has over many other mines, it will be found a difficult matter to obtain a sett to equal it in this country; it is in a highly mineralised district, lying central between the Great Frongoch and Goginan Mines, which have paid such enormous profits, and close to the turnpike road, and only eight miles from the port of Aberystwith, from whence the ore can be exported. There is another great feature in this mine, which should not be lost sight of; that is the facility afforded for the development of the mine, as the mines can be opened by cross-cuts, which will leave 100 fms. or more of backs, and can thus be worked without the aid of any pumping machinery; and looking at the geological feature of the mine, any practical man must come to the conclusion that it is a very valuable property, only requiring a short time for its profitable development. Therefore, I shall conclude by saying the result of my examination of the mine itself, the sett, and its peculiar advantages has been eminently satisfactory to me, and such as would induce me to recommend it to my friends as a sure and safe investment. I wish you every success in your undertaking.

JOHN KEMP.

Tylwyd, Oct. 1, 1861.—I have inspected the West Silver Bank Mine, and herewith beg to hand you my report thereon. On the north lode there is a very rich course of lead, which reaches to the surface, worth not less than £30 per fathom; whilst to the south there can be no less than three other master lodes, which are to be seen and extensively worked in the adjoining properties. I would, therefore, advise your coming westward about 60 or 70 fms., and driving on a cross-cut to the lode, which could be done in 20 fms. driving, and extend eastward on the course of the lode, which would prove its value, and at reaching the joint where is the course of lead I have spoken about, you would have a back of 40 fms., and would be able to cross-cut the south vein for a small outlet, and with great backs of not less than 50 fms. Your grant in 1 mile square, or more, and it is in my opinion the richest that has yet been developed in Cardiganshire.

JOHN MORGAN.

West Silver Bank Mine, Oct. 3, 1861.—I have this day gone very carefully over this property, and on the north lode, about 3 fms. from surface, I found one of the richest courses of ore that I have seen in this country, at so shallow a depth; this lode is from 4 to 5 ft. wide, and I think will yield from £25 to £30 worth of lead ore per fm., calculating the price at £1 per ton. To the south there are four lodes, at distances varying from 30 to 50 fms. apart, which have yielding great quantities of lead. The north lode has been discovered near the road leading from Aberystwith to the Devil's Bridge, and if attacked from 70 to 80 fms. to the west from this point, on its course, would leave you a back of from 30 to 40 fathoms. If you were to adopt the course which I recommend you would be proving the lode for the whole distance, and would, in all probability, enter the course of ore discovered many fathoms from, or rather before, where it has been laid open at surface. At any point you may think proper cross-cuts could be put in to prove the south lodes, and which I doubt not will be found productive and profitable. You can carry on the work I have recommended at a very small monthly expenditure, and when you reach the ore grounds, erect your machinery, for which there is every facility, having water enough for all purposes. I have, as far as lies in my power, given you a plain description of the capabilities of your grant, which is very extensive, being more than one mile in length and one mile in breadth, with one of the most liberal landowners in this county, Col. Powell. My own opinion is that, if you were to act on the plans I have proposed, good and substantial profits must be ensured to you for very many years—in fact, it has not been my lot to have met with anything of the kind in this county already discovered before, and I would do strongly advise your immediately adopting my suggestions. The geological department I leave in better hands than my own, but I believe there is everything necessary to form large bodies of ore, and consequently have treated only on the practical part.

ABSAJOM FRANCIS.

London, Oct. 4, 1861.—I have now returned from Cardiganshire, and beg to offer you my report of your West Silver Bank Mine, which almost before a blow has been struck with the pick is already a valuable property, as a valuable discovery of excellent lead ore has been made, and exists in quantities of £20 worth, or more, to the lode, that anybody may see only 3 or 4 ft. below the grass—specimens of the lode broken by my own hands, which sufficiently vouch for the goodness of the lode, I this day deliver to the office—a sight seldom met with in the most established mines, and particularly striking in a new mine like yours. The mine is situated to the north of the Great Frongoch Mine, and to the west of the Silver Bank Mine, the lodes of which are well filled with rich lead, and close to the boundary pass into and through the West Silver Bank grant. There are few mines in the world more favourably situated than this with respect to its geological and mineralogical conditions, which is in the heart of all the dividend-giving Cardiganshire mines, and between the silver-lead and the common lead districts. The convenience of carriage is also great, the Aberystwith and Devil's Bridge turnpike road passing over the top of the lode, and the ore is seen in large masses only a few feet from the road. The carriage is between eight and nine miles to port, but when the Manchester and Milford Haven Railway is made the distance to the station will only be about two miles. The facilities for mining this group are exceedingly great; an adit driven 122 fms. will drain the formation of one course to the surface for a depth of 40 fms., and I estimate that, from the appearance of the ore ground at the surface, its extent, as measured by the boulders of lead strewn along the surface, should the ore continue for the distance indicated by these evidences, this adit will not render available less than £80,000 worth of lead ore above its roof, which should give a profit of one-fourth, or £20,000. In this estimate I am only alluding to the ground above the adit, and the calculation is not at all an extraordinary one with reference to the ore ground in the surrounding and sister mines for example, at Goginan the course of ore was 60 fms. long, 60 fms. high, and worth £60 per fm., or £216,000; at Logybras £150,000 worth of ore has been extracted from above the adit, and at Frongoch a similar section of the lode would be worth upwards of £300,000—so that I do not make an extravagant estimate in predicting that this lode above a good adit taken up from the break below would unwater and ventilate from £80,000 to £100,000 worth of lead. The ground is held under a favourable lease from Colonel Powell, and I am glad to be able to testify to you, and those becoming concerned in Cardiganshire mines, that the landlords of that county are taking a very liberal part towards the miner. I heard of an instance of Mr. Loxdene having reduced his royalty to a twentieth in a large mine in the district during my visit, and this, when the lightness of the water charges is considered, contrasts very favourably with the steam-drained mines of Cornwall. In West Silver Bank, besides the lode I have alluded to, where the ore comes up to the surface in masses of tons to the fathom, and for which I have only estimated the value of the section of the lode above the adit, there are several other lodes full of metal, which by extending the cross adit will be drained to a greater depth than

this, showing the formation of ore at the grass; and I have taken no account of the sections of the lode below adit, which, as a matter of course, in this deep mining country, where the rock is 20,000 ft. in thickness, will be incomparably more valuable than those above. To the east of your mine, in the adjoining sets, the whole of the side of the mountain, from the top down to the River Rheidol, has been excavated for metal by the Romans in their peculiar style of mining, chiefly by small chiselled levels, 3 ft. in height and 18 in. in width, turning from hand to hand, and giving the spectator the idea of an aisle in a Gothic cathedral; in other places open excavations exist along the line of the metallic veins in commemoration of that extraordinary people, the pioneers of the arts wherever they penetrated, and wherever they have touched for mining purposes. Although necessarily treated in a shallow manner in comparison with those deep workings for metal effected in modern times by means of man's most powerful conductor, the steam-engine, there is seldom any paucity of ore, on the contrary, very seldom wanted the instinct to settle over the largest masses of the most valuable metallic deposits. The lodes from these old Roman workings have been traced along the surface to your boundary, and the whole of them remain whole, intact, and full of metal to the surface throughout the large extent of your grant. Your object is not to find them, but only to extract them. I do not advise you to await for the adit, which, however, must be begun immediately, but put up the necessary water machinery, and begin to sink on the ore at once.

MATTHEW FRANCIS.

THE PROGRESS OF MINING IN 1860, BEING THE SEVENTEENTH ANNUAL REVIEW.

BY J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Miners*, &c.

The SIXTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in the MINING JOURNAL of December 31, 1859, and January 7, 1860.

A FEW COPIES of the REVIEW OF 1855, containing Statistics of the Metal Trade, the Dividends and Percentage Paid by British and Foreign Mining Companies, and the State of Prospects of upwards of 200 Mines. Also a FEW COPIES of the REVIEW OF 1852, 1853, and 1854, MAY BE HAD on application at Messrs. WATSON and CUELL's Mining offices, 1, St. Michael's-alley, Cornhill, London.

Also, STATISTICS OF THE MINING INTEREST. By W. H. CULL.

WATSON AND CUELL'S MINING CIRCULAR,

published every Thursday morning, price 6d. or £1 per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to Investors and Speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON, F.G.S., and published by WATSON and CUELL, 1, St. Michael's-alley, Cornhill.

N. B. MEERS, WATSON and CUELL have made a selection of a few dividend and progressive mines, which they have reason to believe will pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

Plates, 8vo., cloth, price 10s. 6d., by post 11s.

THE MINERS' MANUAL OF ARITHMETIC AND SURVEYING.

By WILLIAM RICKARD,

Teacher of Practical Mining in the late Mining School of Cornwall, and Principal of the Engineering Academy, 4, Myrtle-street, South, Liverpool.

Truro: Heard and Son, London: Longman and Co.; the office of the *Mining Journal*, 26, Fleet-street; of the author, and of all booksellers.

Now ready, large octavo, half bound, price 10s. 6d.,

BOOK-KEEPING FOR IRON WORKS:

A simple and complete system of double entry, expressly adapted for the iron trade, showing the method of ascertaining the cost per ton of the puddled bar and finished iron.

By G. J. WILLIAMS, Accountant.

Eighteen years cashier and book-keeper in extensive works.

"A book which renders systematic book-keeping as simple as the writing of an alphabet."

London: *Mining Journal* office, 26, Fleet-street, London, E.C.

GEOLOGICAL SECTIONS OF THE ORDNANCE SURVEY

OF ENGLAND, WALES, AND IRELAND, on three different scales, coloured,

MAPS OF ENGLAND, WALES, SCOTLAND, IRELAND, SPAIN, and OTHER MINERAL DISTRICTS, on various scales. PLANS, SECTIONS, and MAPS LITHOGRAPHED, TRACED, and COLOURED OR MOUNTED, on the shortest notice, by Letters, Son, and Co., Royal Exchange, E.C. Illustrated catalogues may be had on application.

JOINT-STOCK COMPANIES PROMOTED,

REPORTS, PROSPECTUSES, NEWSPAPER NOTICES, &c., PREPARED, and ADVERTISING ECONOMISED, by MR. LEE STEVENS, No. 36, CANNON STREET, LONDON, E.C.

MINING AND ENGINEERING CONTRACTS EFFECTED.

Notices to Correspondents.

** Much inconvenience having arisen, in consequence of several of the numbers during the past year being out of print, we recommend that the Journal should be regularly *uled* on receipt: it then forms an accumulating useful work of reference.

COLLIERY VENTILATION—AIR-MACHINES AND THE FURNACE.—If ventilation be produced by mechanical contrivances, duplicate apparatus should in every case be provided, while the preparations should be of far greater magnitude than any I have hitherto seen. Its capabilities I am quite sure are much overrated, which will subsequently appear from actual experiment. I should like to have a better and cleaner mode of producing ventilation than by the furnace, but I must confess I cannot at present see how it is to be obtained. I have made some extensive experiments with the fan, and I am now engaged at intervals on Struve's airtometer; but the simplicity and effectiveness of the furnace, when properly constructed, will, I believe, be found the most safe and useful of all.—COAL.

COAL MINES LIGHTED BY ELECTRICITY.—In the Supplement to the *Mining Journal* of Oct. 19 I see a notice of this interesting subject. Can any of your correspondents inform me, through the Journal—1. Is the apparatus of an expensive character?—2. Is it likely to be often out of order?—3. Would it be well adapted for lighting the main roads of mines as well as the stalls?—4. Could a man of moderate intelligence manage them?—5. What would be about the cost of lighting a mine, as compared with candles or gas? Information on the above points will oblige.—A. MINER.THE SULPHUR TRADE.—I observe that a charge is made in the *Gateshead Observer* against Irish mine-owners—that they are unwilling to sell their sulphur ores upon the same principle as the Belgians. I admit that when ore contains copper and other valuable metals, as well as sulphur, the Irish mine-owners like to be paid for the copper, &c.; but I will undertake to say that if buyers will purchase according to the percentage of valuable products in the ore, sellers will not object.—H. B. N.

NORTH WHEAL ROBERT.—"R. G. G."—We have taken the trouble to make enquiries, and we believe there is no ground for the remarks of our correspondent, who, if a shareholder, should go to the office for information before hazarding statements which cannot be borne out. The working of the mine is under the first practical management; and we believe everything has been done that could, and ought to have been done, to develop it properly and economically. With regard to the other mines alluded to, they were highly thought of by the best practical authorities; and several of those that were abandoned are again at work by other parties, who, however, have not yet brought them to that success which they anticipated. We know that almost all the dividend mines were abandoned, many of them more than once. As to mines struggling on with disheartened shareholders, that is the case with very many which in the end reward those who hold on. We could enter at length into this part of the subject, but shall only now remind our correspondent that East Cornwall struggled on for six, or seven years without selling a ton of ore, and some of the disheartened shareholders sold their shares about two years ago at 6d., which are now 26d., besides 21d. divided. Similar remarks might be made of East Bullion, Great Wheal Fortune, Cwm Erha, and others of recent date. The dividend paid by the company mentioned by our correspondent came out of a legitimate profit; but the company have an extensive and valuable property to develop besides the mine, and they have been laying out their capital on what may be considered of a more permanent character than mining.

GREAT WHEAL MARTHA.—Will you allow me space in your excellent Journal to express my regret that captains so over-estimate both the quantity and quality of ore raised. I cannot conceive what object they can have, unless it be to force up the price of the shares for the time. To take the case of Great Wheal Martha. So late as Sept. 26 the secretary issued a circular to the shareholders, in which he says that "there is no doubt we shall make regular returns of, at least, 400 tons per month." And the captain in his report, which is inserted in the secretary's letter, says, "that on the 27th we shall sample over 300 tons, leaving us with the same quantity on the mine towards another sampling; and I estimate the

we are benefitted to the amount of 1,065,197. From Mexico we obtained 5,256,836L, and did not remit anything; and from Australia we received 4,889,432L, on similar terms.

MINING CONGRESS AT VIENNA—No. IV.

Among the losties of the Salzburg Alps, and not far from the celebrated thermal springs of Gastein, a gold mine has been worked for centuries past in the mountain called the Rath-haus-berg, under circumstances of no little difficulty. Exposed from its great height to the severity of a winter climate, which sometimes buries the mouths of the adits under avalanches of snow, it has suffered from the greater evil of a gradually diminishing proportion of the precious metal, until it has for many years yielded to a combination of great skill and economy only a percentage of gold so small in its ratio to the quantity of vein-stone, that the average of California holes and Australian "reels" offer in comparison an easy prize. An instructive, but withal fragile, model of the workings on the chief run of these lodes was exhibited for inspection, constructed by the captain of the mine. The chief manager (Verwalter) of the same mine, M. Reissacher, read a practical paper on a very difficult piece of driving which he had lately carried out. It is hardly necessary to premise that the baths of Gastein, frequented as they are by visitors from all parts of Europe, are regarded as a boor of no ordinary importance to the poor Alpine district in which they are situated, and that the discovery of an additional spring is regarded as a valuable gift to the public. M. Reissacher, led to a theory on the subject by careful examination of the springs and of the granitic rock from which they burst, obtained permission to drive a tunnel into the mountain to open upon and lead out a fresh source. The level was driven to a distance of 35 kloster, or 36 fms. English; the first 5 fms. were in surface rubbish; the next 5 fms. in coarse gravel, with some admixture of clay; then 10 fms. consisted of loose fragments of rocks, with empty interstices; and from thence to the end or forebreast of sand and running ground, with occasional hollows, which had a tendency to burst in at the sole and sides. The level was to be arched, and had, therefore, to be opened to the dimensions of 14 feet high and 9 feet wide; and miners will appreciate the difficulty of "spilling" through ground of this character with so large a level, when it is added that the quantity of water was great throughout the driving, and rose towards the end to the almost unbearable temperature of 110° Fahr. M. Reissacher described very clearly the whole proceeding, and stated that the two rules by which he was guided were mainly the following:—"Never to allow the weight time," and "to diminish as far as possible the size of the driving end."

M. Rittinger, whose contributions to the machinery for dressing ores are well known, exhibited the model of a new continuously-working percussion-frame, which he considers would be especially applicable to the treatment of rough stuff, such as is at present often passed, with considerable charge for labour, through *ties, stakes, or shaking trunks*. The ordinary percussion-frame receives its shock from the upper end: some of our readers who have not seen it abroad, where it is extensively employed, may have witnessed its action at the Tamar Mines, in which it has been long applied to the cleaning of finely divided argenticiferous lead slimes. This frame, like others, is worked for a certain period, until a bed of sediment has been formed, and is then stopped for its removal. In this new apparatus of Rittinger's the shock proceeds from the *side* of the table, and a certain quantity of clear water is allowed to flow over the head-board, alongside of the part where the "stuff" is delivered. The result of the combined action of the blows of the machine, and of the water passing down the inclined plane, is to give a diagonal motion to the particles placed there for separation; the richer portions are constantly delivered over one side of the frame at a short distance below the head-board, whilst the poorer find their way out lower down. It is necessary that the surface be kept very smooth, hence some kind of hard wood must be employed for the flooring, in place of which M. Sarossy, of Felsöbanya, has successfully applied sheet-zinc. The apparatus is still upon its trial, but it is evident that this, along with the continuous jiggling-machine, is a step in the right direction, tending to carry out a "self-acting," and therefore economical, series of processes in dressing; and it is by applications of this kind that large quantities of poor ores may be made available, and that the washing of coal, and of other low-priced minerals, may be more generally adopted.

RESPONSIBILITY OF WORKMEN IN THE IRON MANUFACTURE.—A case of some importance to the iron trade is engaging the attention of the Judge of the Durham County Court. At the September sitting of the Court a foreman roller, named Hill, brought an action against his employers, the owners of Spennymoor Iron-works, to recover a certain sum which, as he alleged, was due to him for wages. The owners claimed to deduct from this sum for a quantity of iron which had been returned by a customer of the establishment, and which, it was stated, had been spoiled by bad workmanship on the part of the defendant, or some other of the men through whose hands it had afterwards passed. On the part of the defendants, Mr. Dyson, manager of the works, Mr. Vanner, mill manager, and Mr. Wharton, forge and mill manager, gave evidence to the effect that when any work was spoiled, either by the rolling or shearing, all the workmen engaged in making the bad plates had to do the work over again. This was the custom of the trade, and it was equally applicable whether the roller or the shearer spoiled the work. The roller sometimes employed the shearer, but in this instance the shearer was employed by the defendants. On behalf of the plaintiff, several workmen denied that there was any such custom in existence in connection with the trade, and it was argued that it would be preposterous and unreasonable to expect that a roller should be responsible for the work of a man over whom he had no control. To this it was responded that the object was to fix the responsibility; and this could not be accomplished unless all the workmen connected with the manufacture of the iron were rendered liable for each other's negligence. The men, besides, were paid high wages for the purpose of covering these casualties. The learned judge deferred his judgment in order that he might attentively consider the law upon the subject, and last week his decision was to have been delivered. His Honour, however, intimated that the decision must depend so much upon the custom of the trade that he should like to have some independent testimony. The case was, therefore, adjourned until the November Court, in order that additional evidence might be brought forward.

LEES' IRON PATENT—PROLONGATION.—The Judicial Committee of Her Majesty's Privy Council have fixed Dec. 2, at half-past ten o'clock, for the hearing of the petition of Samuel Lees for the prolongation of his patent, dated Aug. 8, 1848, for "certain improvements in the manufacture of malleable iron." The improvements claimed under this patent relate to the method of forming the pile or fagot. The plates or flat bars are placed at right angles, the corners being dove-tailed or overlapping, and the interior is to be filled with best scrap iron or other plates, placed similarly overlapping, or placed vertically or horizontally, as may be found most advantageous for the kind of bar required, also to an arrangement and construction of rollers. A suitably formed bar or mould is attached to the framing of the rolling-mill, so as to preserve the form of the groove or hollow while the bar is passed through the rollers on its edge. Also, two sets of rollers are used revolving in different directions side by side, so that the bar need not be lifted over the rollers; also, bars of iron are to be straightened after being rolled, by fastening them to two clamps or holders, and allowing them to draw themselves into a straight line by the force of contraction when they cool.

BOOK-KEEPING FOR THE IRON TRADE.—The art of book-keeping is one to which too much importance cannot be attached, whether considered in relation to the trader himself or to the public generally; from the system with which the accounts of an undertaking are kept the position of those interested may in most instances be estimated. Although the practical accountant can open a set of books for any trade with almost equal facility, there are a large number of book-keepers connected with industrial establishments who are not sufficiently well versed in the niceties of the art to ensure that distinctness and accuracy which are so desirable in business. It is well known to the professional book-keeper that each trade has its peculiar character, and that the books must be framed accordingly; hence a treatise upon bookkeeping, as it should be practised by a particular class of traders, is frequently found to be invaluable even to those who can observe nothing in general treatises but mysterious intricacy. With a full knowledge of these facts, Mr. G. J. Williams, of Brierley Hill, Staffordshire, has prepared "A Simple and Complete System of Book-keeping by Double Entry, expressly adapted for the Iron Trade, showing a method of ascertaining the cost per ton of the puddled bar and finished iron" (published at the *Mining Journal* Office, price 10s. 6d.), and as he has had 18 years'

experience as cashier and book-keeper in very extensive works, his ability to accomplish the task he has undertaken successfully may be readily judged of. It is universally admitted that where accounts are kept by double entry *errors* cannot escape detection, and fraud is rendered much more difficult, yet a too general opinion prevails that the application of the system involves much additional trouble, and a far more intelligent staff of clerks. Than this nothing can be more erroneous, for the books once opened there is practically no more difficulty in keeping them in order than in making out an invoice. From the careful manner in which the models of the various books—*invoice-books, sales-book, cash-book, journal, trade ledger, and general ledger*—are given, any ordinary clerk may open a set of books upon the double entry system more entirely suited to the requirements of the ironmaster. An appendix contains a concise code of instructions, which will effectively prevent the novice from making entries in wrong positions.

GOVERNMENT MINE INSPECTION—SPECIAL RULES.—It may not be generally known to those owners and agents of mines and collieries who have not already caused special rules to be established for the conduct and guidance of persons acting in the management thereof, and of all persons employed in and about the same, pursuant to the 11th, 13th, and 15th sections of the Act for the Regulation and Inspection of Mines, that they are now liable to be prosecuted for such default or neglect.

THE BRONCOED COAL AND CANEL FIELD.—In continuing the borings below the seam of Cannel 3 ft. 4 inches thick, recently announced in the *Mining Journal*, and at a depth of 13 yards below the Cannel, a good coal 4 ft. thick was met with on Oct. 26. This is the first instance in which the "lower coals" believed to exist at "Broncoed" and in the Mold district have been actually reached. The importance of the proofs made by the Broncoed Colliery Company cannot be over estimated. To "Mold" entirely new features in mining enterprise have been developed by these discoveries—other coals are looked for.

GREAT STRIKE OF COAL MINERS IN NEW SOUTH WALES.—The whole of the pitmen in the coal field of Newcastle, New South Wales, are on strike against a proposed reduction of 20 per cent. in their wages. Public feeling at Newcastle runs strongly in favour of the men, and a great open air demonstration, at which resolutions were passed to refuse the masters' terms, and to start a co-operative coal mining association amongst the pitmen, was attended by all the leading shipowners and merchants of the city. The following circular was distributed at the termination of the meeting, and the men were exhorted to forward it to their friends in England:—

TO THE COAL MINERS OF ENGLAND.

FELLOW-MEN.—Aware that efforts are now in operation to induce you to come out to New South Wales, under every species of delusive promise and false representations, we, the miners already here, are desirous of making you aware that our condition is not so satisfactory as you will be led to imagine. The labour market generally is now overcrowded, and in our particular branch, of coal getting, there are already two men employed in doing one man's work. The consequence is that we are just being reduced below the condition of those at home. The price of the necessities of life considered, the average wages we are now earning—36s. per week—does not afford us ample means of procuring the comforts and necessities of life for our families. Yet, at the present moment, our employers are making an attempt to reduce our wages by 20 per cent., against which reduction we are now out on strike, and, unless successful in our effort, we shall sink below all possibility of maintaining our families by our labour. Under such circumstances, we put it to you, as men, whether it would be prudent for you to allow yourselves to be inveigled out here under the false pretences of our oppressors.—Signed, on behalf of the New South Wales Miners' Association, JAMES FLETCHER, Chairman.

SIR RODERICK MURCHISON AND DR. CUMMING.

The Rev. Dr. Cumming, in a recent lecture at Manchester, having commented at some length on Sir Roderick Murchison's views respecting the interior of the earth, the eminent geologist, through the columns of a local journal, thus replies to the remarks of the reverend gentleman:—"Dr. Cumming having said that he consulted me, I must state what occurred between us at a merry morning *déjeuner* at Tunbridge Wells, where I met the reverend and eloquent gentleman at the house of a mutual friend. He asked me if I believed in an internal fiery state of the globe; and I replied that, in common with the majority of geologists, I inferred from the evidence of increase of temperature in deep shafts, and also from former and present outbursts of igneous matter, that the existence of a central heat could not, in my opinion, be denied. The words 'burning cauldron,' as used by the Doctor, are, of course, not mine. If not misreported, Dr. Cumming has, in the same lecture, completely misunderstood what I said to him on the subject of gold. I directed his attention to two verses in the Book of Job, which indicated that the patriarch was an observant mining geologist. The words (chap. xxviii. 1) are—"Surely there is a vein for the silver;" and in verse 6—"It (the earth) hath dust of gold." Now, although gold, as well as silver, was originally found in veins, or disseminated in solid rocks, yet the more precious metal is usually found in superficial debris of pebbles, sand, &c. (the 'dust' of Job), whilst silver is almost exclusively obtained from vein-stones in mines of argenticiferous galena. So far, therefore, Dr. Cumming is right in announcing that I did say 'Job was a good geologist.' But he added (as one report of his lecture has it) that I was led to anticipate the discovery of gold in Australia by the words of Job, he is entirely in error. The hypothesis which I formed respecting the probable existence of gold in Australia originated, and was proved to be true, in this way:—In the year 1814, when fresh from the gold-bearing Ural Mountains, I had the opportunity of examining a large collection of the rocks from the meridional chain of Eastern Australia, brought home by my friend Count Strzelecki, and I was so much struck by their resemblance to my Uralian rocks (also a meridional chain) that I publicly expressed my surprise, in addressing the Geological Society, that no gold had *yet* been found in our distant colony. The more I reflected on the subject, the more I was led to the belief that gold would be found in Australia; and in 1846 I urged the unemployed tin miners of Cornwall to emigrate and try there their luck in gold diggings. In 1848, having received small specimens of gold from two or three parties, I wrote to Her Majesty's Secretary for the Colonies, and said that what had been a theory was then a realised fact, and expressing my opinion that Australia was about to become an auriferous region. This was three years before the so-called *discovery* of gold in Australia."

The third session of the GEOLOGISTS' ASSOCIATION will commence on Monday, when Prof. Morris, F.G.S., of University College, will read a paper on "Coal: its Geological and Geographical Position;" and, during the session, he will continue the subject by delivering a lecture on "Coal Pits and their Construction," which latter will be illustrated by experiments. Amongst the gentlemen who have also undertaken to read papers during the session, we may mention Prof. Tennant, of King's College; Mr. C. B. Rose, F.G.S.; and Dr. Wilkins. And as the excursions and field lectures have given such satisfaction to the members that a larger number have been arranged during the ensuing session than in either of its preceding ones, it may be presumed that the success is as complete as the most active promoter (our esteemed correspondent, Dr. Hyde Clarke) could have hoped for. The institution may be regarded as the amateur's geological society; and whilst the executive are enabled to secure the aid of such lecturers as those above referred to, the progress of the association may be relied on.

MUSEUM OF PRACTICAL GEOLOGY—PHYSIOLOGY.—Professor Huxley, F.R.S., gave his second lecture on the above subject on Saturday evening last. He stated that the study of the human body might be considered under the two heads—first, the plan of construction; secondly, the adaptation of its various parts to the particular purposes of support, protection, and motion. In examining the human skeleton we find it to be composed of a jointed axis, having two sets of arches—the one protecting the spinal marrow, the centre from which all the nerves are given off; the other enclosing the respiratory and alimentary organs. He now compared this arrangement with that of the lower animals, elucidating the subject by skeletons of the bear, crocodile, and cod fish. After showing that they had an analogy in common, he went on to consider the jointing of the vertebra, and the apertures from its bony girdles. The lecturer then dwelt on the contour and inflection of the spinal column, and its beautiful adaptation as a protective agent. From this he considered the bones and their ligatures, and by a series of sketches showed the jointures of the humerus, tibia, and femur, the last of which, he stated, is the most remarkable joint in the human body.

THE DAVY LAMP.—At the Manchester Geological Society meeting, on Thursday, a discussion took place on the question of the safety of the Davy lamp as ordinarily used. Mr. Goodwin said he had frequently taken a Davy lamp into fire-damp and waved it, and he had never found it explode. The Chairman remarked that the lamps were often set down on the ground, and the gauze was liable to be choked up with coal dust and oil. He asked if Mr. Goodwin had ever waved a lamp about in that condition. Mr. Goodwin replied, certainly not. The Chairman remarked that he would be a bold man if he did. Mr. Dickinson said in all the explosions he had investigated he had never yet found an instance where the explosion had been caused by a lamp, unless the lamp was very imperfect. Of course the Davy lamp ought never to be used in fire-damp, and made a substitute for ventilation; but at the same time he considered it the most perfect instrument we had. The Chairman urged the desirability of some really practical man making experiments on the subject in places where, as at Wigan, the fire-damp could be obtained above ground. Mr. Goodwin promised to read a paper on the Davy lamp at an early period.—Mr. Lacey submitted specimens of lead in coal found in a mine at Axe Edge, Derbyshire. The Chairman remarked that these specimens were interesting, as showing that the fusion could not have been caused by the action of heat, as the coal was not at all charred.

GEOLOGICAL SOCIETY.—Papers to be read on Wednesday, at Burlington House:—"Note of the Bone Caves of Lons Viel, Hérault," by M. Marcel de Serres; "On the Petroleum Springs of North America," by Dr. A. Gesner, F.G.S.; "On a Volcanic Phenomenon in Manilla," by J. G. Veitch, Esq.; "On some Additional Remains of Land Animals in the Coal Measures of Nova Scotia," by Dr. J. W. Dawson, F.G.S.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

OCT. 31.—The Iron Trade appears to be a shade quieter than it was. The orders received for manufactured iron are rather smaller, which may be partly accounted for by the advance of the season rendering it unsafe to ship for the Baltic and for the northern parts of North America. Pig-iron is decidedly flatter, and parties anxious to sell are offering lower terms. The Hardware Trades present no decided change, but complaints are plentiful of the dullness of the demand in many branches. The advance in the price of copper puzzles people, and can only be accounted for by the low rate of discount which prevails.

The new Birmingham Joint-stock Bank, on the principle of limited liability, is launched, and appears likely to float. The capital is fixed at 500,000L, in shares of 100L each. Only a fourth is to be called up, so as to have a reserve fund of 375,000L, which is an ample guarantee for creditors, if the management is satisfactory, after making liberal deductions for shareholders who might, at an exigency, prove defaulters if called to pay up their arrears. The shares are being rapidly taken up, and there seem to be good grounds for anticipating that the new concern will shortly be in operation. It is proposed to commence operations in January of next year. One of the conditions is that not more than 5 per cent. is to be divided until a large guarantee fund has accumulated.

A prospectus has been issued of the Cannock Chase and Ogley Land Company (limited), which has been formed for the purpose of purchasing lordships of waste and other lands in England and Wales, and enclosing, draining, irrigating, improving, dividing, and selling the same. The company propose to commence their operations in Cannock Chase, in this county, an extensive waste, many parts of which have been successfully reclaimed. It is stated that the capital required by the Articles of Association has been supplied, and that the company is prepared to enter into negotiations for purchases at once. Three of the seven directors advertised are resident in this county.

It appears that Griffiths' Desulphurised Iron is gradually making its way, and from the approbation which is accorded to it, its general application may fairly be looked forward to. It is now being extensively manufactured by Messrs. E. B. Thorneycroft and Co., of West Bromwich.

Mr. Benjamin Chavasse, proprietor of the Ettingshall Colliery, near Bilston, appeared on Wednesday before the Wolverhampton magistrates, in answer to a summons, in which he was charged with five offences against the Mines Inspection Act, the informations having been laid by Mr. J. P. Baker, the Government Inspector of this district. The offences charged were—First, not having an adequate break; second, not having a steaming-gauge; third, not having an indicator to show the position of the load in the shaft; fourth, not having the fly-wheel fenced; and fifth, having a pit-mouth insecurely fenced. Mr. Chavasse pleaded guilty to all the charges, and as the Inspector did not press for heavy penalties, he was fined 2L. for the first and last offence, and 5s. for each of the others, making, with the addition of the costs, a total of 13L. The Inspector had visited the colliery, and pointed out that the rules were not complied with, but on a subsequent visit he found that the neglect was continued.

Several fatal accidents from falls of roof have happened during the last few days, but they do not present any feature of a special character.

REPORT FROM MONMOUTH AND SOUTH WALES.

OCT. 31.—On Tuesday a fearful accident occurred at the Pontypool road station, on the West Midland Railway. The 10:15 A.M. Monmouth train arrived at its usual time, and it had to wait 15 minutes for the other train. The majority of the passengers alighted on the platform while the train was being shunted to the Merthyr line. The driver started the engine, and then jumped off, thinking that the stoker was at his post; this, however, was not the case, just as the engine-driver went down one side of the engine the fireman got off the box on the other side for the purpose of getting coal waste, and consequently, there was no one left to regulate the engine. Seven passengers had remained in the carriages, and when those on the platform saw the impending danger a scene of indescribable consternation ensued. The engine increased its speed, and proceeded down the line towards the Pontypool Junction, a distance of about one mile. Here it came into collision with the engine of a coal train, and both were thrown off the line, and seriously damaged. Fortunately, the passengers escaped with a few bruises and the effects of the shock. Medical assistance was immediately procured, and all the injured parties were able to leave during the day. A rigid examination will be made as to the conduct of the engine-driver and stoker.

The various collieries of the district are nearly all in full work. At Risca, the company raise 300 tons per day from the Rock Vein, and about the same from the Black Vein. The Blaen Company has the contract of supplying coal to the Royal Mail Company, and the Black Vein is exclusively shipped for this purpose. The demand for the latter is so great that energetic steps are now being taken to increase the yield to 450 tons per day of Black Vein coal. Mr. Brough, the Government Inspector, strongly recommends the company to sink a shaft to the deep, which would vastly improve the colliery as well as the ventilation; this recommendation, however, as yet has not been acted upon. The Abercane Colliery is at a complete stop, not a ton of coal having been raised since the commencement of the strike. Neither the masters or men evince any desire to yield, and the trade of the neighbourhood suffers most materially from the dispute. It is stated that unless the turn-outs soon resume work at the old prices fresh men will be procured from other colliery districts. It is to be hoped, for the sake of the men themselves, that they will accept a compromise, as it will be impossible for them to hold out long against their employers. The Enewy'r-glyn and Penner Collieries are in full work, and the house coal collieries of the district show unusual activity.

The shipping trade of the Welsh ports remains about the same as reported in our last. The great difficulty of procuring freight continues, and there are now many orders in consequence of the want of ships. There are a number of American ships at Newport and Cardiff, and their masters would be glad to take cargoes at greatly reduced freights; but the tonnage of the vessels preclude their being engaged in the coasting and the short voyages to the French ports. At Cardiff trade is dull, although the docks are full of vessels, and there seems to be a good business done. Swansea retains its usual activity, and of the three ports it certainly is the best off, both as to its present trade and the prospects of the future.

Several accidents have occurred during the week. On Thursday, a workman named King, employed in the No. 3 refinery, Old Works, Dowlais, inadvertently put a bar of cold iron in the furnace, and in an instant the red-hot iron dashed out, and the poor fellow was severely burnt. He was wrapped in blankets and old rags, and immediately carried to his home. His injuries, however, were so extensive that the medical gentlemen from the first despatch of his life. Six of the workmen were more or less injured. King lost his two eyes, and since writing the above information has been received of his death.—On Monday a collier named Rees Evans, working at the Pwll Rasiass Coal Pit, Duffryn, met with a fatal accident. The deceased was employed in clearing the roads, and did not observe the approach of the tram, which ran over him, and death shortly ensued.—On the same day a young man named John Thomas was killed in the Ynysynewydd Coal Pit, Aberdare, by a portion of the topings falling upon him.

PORT OF NEWPORT, MONMOUTHSHIRE.

SIR.—In last week's Journal I see that in the "Report from Monmouth and South Wales" an error has been made which may possibly deter vessels from being sent to the port of Newport for freights, and so tend to the injury of it. I allude to the statements that "the coasting trade has fallen off to a considerable extent of late, in consequence of the want of a proper ballast ground and other conveniences," and that "trade already suffers from the difficulty which captains have in discharging their ballast." Being a railway manager, a dock director, and harbour commissioner, intimately acquainted with facts relating to the trade of the Port, and assuming that you wish to furnish correct information to your readers, I can state positively that there exists the same facilities for discharging ballast from coasting vessels as have existed for many years, and that there has been no unusual falling off of trade in consequence of the reasons assigned; also that the facilities for discharging ballast with dispatch from the large vessels which use the Dock are not excelled at any

effect. There is good reason to believe that the Union had something to do with the occurrence. The necessary preliminary steps for the making of a direct railway between Chesterfield and Sheffield are being proceeded with, and to-day very influential meetings have been held in the latter town for the purpose of giving public aid to the scheme. The surveys and estimates have been completed, and though some of the gradients will be very sharp, as much as 1 in 100, we believe the estimated cost is under 20,000 per mile. From all appearances, it would seem pretty certain that the line will be made. If it should, it will be the most important step which has yet been taken to develop one of the most extensive coal fields in the kingdom. Strange to say, some years ago, when the Midland was projected, this route was proposed and objected to, the parties offering their opposition on the ground that the town of Sheffield would be inundated with coal! The progress of events has taught those who originally opposed the scheme now to become its greatest supporters. On Saturday last, a mineral train of 40 wagons was run along the new extension of the Erewash Valley Railway, for the purpose of testing the line. It was proved to be highly satisfactory. This line will now become an important one for mineral traffic. It will shorten the distance to the Erewash Valley coal fields about 20 miles, besides affording an exit for a large field of minerals.

The practice of colliers leaving their work on the Monday to indulge in drinking, dog coursing and other games, has become so great of late that the coalminers have determined to stop it by taking every offender before the magistrates. Last week six of these offenders were apprehended, and on Thursday several others were brought up on the charge of being absent, and allowed to return to work on the payment of expenses, the masters not wishing to send them to prison.

A great dullness pervades the lead mining districts of Derbyshire. North Derbyshire is almost at a standstill, and the shareholders are wearied of living on the faith of better times. The Mill Dam Mine is getting a tolerably good quantity of ore, but the expenses are so heavy, and the liabilities have been so great, that up to the present nothing has been available for dividend. We hope to hear of one being declared before long. The shareholders of the Mill Town Mine have been called together by Mr. Binns, for the purpose of subscribing the additional capital necessary to finish the sinking operations through the toadstone. Before the meeting few new shares were taken up, but the prospects of the mine appeared so good that nearly the whole of the capital was subscribed by the present shareholders. The Eymore Mine is looking better, and the prospects of this fortunate company are still favourable. Besides having a surplus of about 2000/- in the bank, they are paying a dividend of 1/- per share quarterly.

The depression in trade has almost stopped speculation in Derbyshire mining shares.

The Chesterfield, Midland, and Stockton Colliery Company is not favourably received in the neighbourhood of Chesterfield, and but few shares have been applied for. The reasons why this is so are various. First, it is considered that the price per acre for the coal, 21/-, is just 60/- too much; next, it is alleged that the freightage to be paid for the coal along Mr. Fowler's private railway is 2/- per ton too much; and, lastly, it is enquired why some influential gentlemen in the neighbourhood of Chesterfield are not on the list of directors? A very many singular questions are asked, but until we have penetrated further into the reasons of the querists we must refrain from publishing them. We hope the company may succeed; we are confident the locality is well chosen, if the elements of success can be efficiently wrought out.

The following letter has been addressed to the Editor of the *Derby Reporter*:—“In your report of the proceedings of the Derbyshire Quarter Session, held on Tuesday, the 15th inst., Mr. Cantrell is represented to have said that ‘the collierymen pay their men monthly.’ And Lord Waterpark asks ‘If the collierymen do not compel their men to take provisions at a high price, and cause them to get into debt?’ As far as this colliery is concerned, we beg distinctly to deny that there is the slightest shadow of foundation for the assertion hazarded by Mr. Cantrell, or the implications conveyed in Lord Waterpark's question. The workmen are, and always have been, paid weekly; and not the remotest pressure or inducement of any kind, direct or indirect, is held out to them to deal at any shop whatever. On the contrary, they are paid on the afternoon of Friday, to enable them and their wives to take advantage of the neighbouring markets of Alfreton on Friday, and Codnor Park and Nottingham on Saturday.—COKE and CO., Pinxton Collieries, near Alfreton.”

TRUTH'S ECHOES; OR SAYINGS AND DOINGS IN MINING.

Although the Mining Share Market has not been active during the week, still there appears to have been a fair amount of business, which may be accounted for by the transactions consequent on the account-day, which took place on Thursday, when many shares changed hands to meet the exigencies and requirements of that day. EAST CARADON shares were found very scarce. The half-yearly holiday on the Stock Exchange yesterday was another innovation on the general business of the week.—WHEAL SETON shares have been largely dealt in during the week, although the prices have fluctuated, but left off firmer.—EAST BASSET shares have been more in request, and slightly advanced.—NORTH BASSET shares have changed hands at former rates.—SOUTH CARN BREA shares are freely enquired for at present prices.—COOK'S KITCHEN shares in request, but without any material change in price.—NORTH DOWNS shares have changed hands at higher rates, and continue in request at buyers' prices.—NEW TRELEIGH shares have declined, and buyers scarce at minimum quotations.—CONDUBROW shares are much lower, and more freely offered.—NORTH CROFT and NORTH ROSKEAR shares have changed hands, the former at higher prices.—STRAY PARK shares are not firm at present quotations, there being more sellers than buyers.—TINCROFT shares are firm, with few sellers.—EAST CARADON shares have been freely dealt in, and several large transactions taken place; and although there has been some slight fluctuations, they maintain the advanced rates for cash.—MARKS VALLEY shares have been in less demand, buyers seeking them at lower rates.—WEST CARADON shares continue heavy, and the few transactions have been at lower prices.—CARADON CONSOLS shares have advanced considerably, from a reported, or rather anticipated, improvement, but there is no appearance of their maintaining the rise.—LUDCOTT shares have been dealt in at minimum prices, and are evidently receding.—MARY ANN shares are in good request, whilst TRELLAWY shares are being offered at lower rates.

HIGGINS DOWNS shares have been taken into quotations, but firm—buyers at the lower rates.—SORTHIDE CONSOLS shares have been largely dealt in, yet former prices are not maintained.—ARTHUR, DRAKE, WALLS, and EDWARD shares have been rather quiet all the week, notwithstanding the improved position and prospects of the mines; the two latter making a fair profit.—GREAT WHEAL MARTHA shares are offered at lower rates.—LADY BERTHA shares only find buyers at less than present quotations.—NORTH WHEAL ROBERT shares have receded from the late advance.—CARN CAMBorne shares have been dealt in at much lower rates, and buyers shy.—EAST WHEAL GREENVILLE and RETALLACK shares are freely offered, but the transactions have been comparatively few.—NORTH TRESKERRY and TOLCARNE shares have changed hands, at present quotations.—WHEAL GRIFFYS shares have been more enquired for, at improved rates.—PROVIDENCE shares have been in demand, at higher prices.—WENDRON CONSOLS shares are sought for, at our minimum prices.—GREAT WHEAL FORTUNE shares have receded very much, and buyers rather scarce, at the lower rates.

At EAST CARADON the 50 east, on the caunter lode, is worth from 45/- to 50/- per fm., the lode carrying a little more gossan. The 60 east, on the same lode, is worth 50/- per fm., and the western end has very much improved during the early part of the week, and is now worth from 35/- to 40/- per fm. The bottoms of the two eastern ends are looking remarkably well, being of greater value than the ends driving. The other places are without any alteration.—AT CARADON CONSOLS the 54 north is looking more promising, and is yielding about 1 ton per fm. of coppery ore of good quality, and is supposed to be the north part of the Menadue lode; the south part, in the same level, is also looking better on leaving the cross-course. The two parts are separated by 25 fathoms of ground. They are opening ground for better ventilation of this level. The caunter lode in the shaft is at present influenced by a cross-course.

At WEST SHARD Tor the 160 cross-cut continues very hard, which renders the progress in opening on the lode very slow.—MARY ANN is represented to assume a much more favourable appearance, and is looking much better in the deepest level, the 170 fm. level north; and as the end is approaching the grey ground gone down from the level above, a great improvement is expected, and that shortly, as the ground has already become easier. The last sale realised for 60 tons 24/- ds. 6d., and 56 tons 10/- 10s. 6d. per ton, amounting to 2048/- 18s.—AT WHEY CONSOLS they have sampled 42 tons of lead, which is expected to realise about 520/-, and will afford some assistance towards the extraordinary debt which has been allowed to accumulate by the retention of merchants' claims for so long a period.—AT CALSTOCK CONSOLS the lode in the 48 east is striking into ore; the lode will yield about 2 tons per fm. The winze in the 48 west has been temporarily suspended, in consequence of the impurity of the air; but we have commenced rising from the 48 and sinking under the 36, which, when completed, will ventilate the former effectively, and enable them to resume sinking the winze, where the lode is 2 ft. wide, producing excellent ore. The prospects of the mine are very encouraging.—THE OIL TON continues to look very promising; they have an excellent lode in the 80 fm. level.

WHEAL EDWARD has improved in the 70 west, and is now worth 20/- per fm. There is a productive lode in the 60 west; the winze and stope will average about 4 tons per fm. The 50 west is yielding about 3 tons per fm., and is now approaching the improved portion of the lode gone down from the 70. Other places continue much the same as previously represented. They have weighed off the ore sold on the 17th, amounting to 250 tons 13 cwt. 2 qrs., valued at 1050/-, which will show a profit of about 150/- on the two months' working.—DRAKE WALLS continue to look very encouraging.—THEY sold off 300/- on the 17th, on the month's (four weeks) workings.

AT GLOSTON DOWNS the 100 west has improved, and promises further improvement from present appearances. The rise is slightly fallen off. The 85 west continues to produce about the same quantity, but of less value in the quality of ore. The rise in the back is valued at 60/-, and the winze at 70/- per fm.—AT EAST DEVON CONSOLS the prospects continue of a favourable character. In the 40 cross-cut south they have intersected a promising lode, and, from its nature, is calculated to become productive on being more developed. They have a change of ground in the 52 cross-cut north, and the 40 west are both looking very encouraging.—AT EAST GUNNIS LAKE an improvement is reported in the 36 fathom level end. The other parts of the mine are looking much the same as usual.

VALLEY OF BERTHA, the lode in the deepest level (53) east is stated to have slightly improved, carrying some good stones of ore. All the other places continue much the same as previously reported last week.—SORTHIDE CONSOLS is looking very well in the 40 west, where they have several stoves in a good course of rcs., varying from 30/- to 45/-.

There are several other points of operation worth from 12/- to 20/- per fm., and further improvements are anticipated from the improved appearance of the ground. The mine has not looked so well for a long time past.—NORTH WHEAL ROBERT is reported to look very promising, for great improvement in the western ground, going towards Sorthide Consols. A cross-course intervenes, and on passing through which some important discovery is fully anticipated on the western side.

AT GREAT WHEAL MARTHA the stoves in the back of the 40 continue to yield 5 tons of copper ore, of good quality. The 20, west of Thomas's shaft, is worth 20/- per fm., which is being driven at 44. 10s. per fm. The 20, east of same shaft, has been cleared for 40 fms., where the lode is standing whole to the 10, which can be taken away at a good profit. They have weighed off the September sampling, 318 tons, and sampled for October 268 tons, and sold 80 tons of coppery muriatic, making 348 tons for the latter month.—PENHAL MOOR: On Wednesday morning they intersected a lode (supposed to be the caunter); but from the influx of water, it was impossible at the time of writing, to form any opinion of its character or value.—AT EAST WHEAL JANE the discovery noticed about a fortnight since continues to hold good. They have driven the adit about 12 fms. through a good lode, which has produced about 15 tons of lead, and are now at surface. They have commenced dressing, and expect in about two months to be in the market with 20 tons of lead.

AT NORTH JANE the discovery recently made in the 12 east is represented to look remarkably well, and the lode fully maintains its size and value. Should this improvement continue in depth, there is very little doubt of their having a good and permanent mine.—AT WHEAL MOYLE an improvement is reported to have taken place in the 20 east, and from the general change and character of the lode, which is producing some excellent and rich copper ore, a good discovery is fully anticipated.—AT CUDBRO improvements are reported to have taken place in the shaft, where they have some excellent rocks of tin, with appearances which encourage the expectation of a far greater discovery in this mine.

AT EAST PALMOUTH: Since the suspension of operations on the lead lodes attention has been directed to the opening of the east and west lodes, and they have met with much

encouragement in driving the adit level. They have extended the level a great many fathoms through a very promising lode for tin and copper, and have, consequently, resolved on the erection of a steam-engine of sufficient power to effectually develop the property. Arrangements are being made for the immediate erection, when good results are confidently anticipated.

NORTH WHEAL CROFT is stated to have improved, and the prospects are considerably enhanced by their near approach to some valuable tin ground gone down from the levels above.—POLGEAR is represented to have improved in the 30 east; the lode is large and promising, and carrying black and grey copper ore. Its proximity to South Frances, with the recent improvement, is looked upon with much interest by the present proprietor.—WHEAL HARRIETT is looking much better than for some time past. The 115 east is producing some good stones of tin. The 100 end is worth for copper and tin 10/- per fm.; the stope above, 8/- per fm.; the western slope below the 100, 20/- per fm.; and the eastern slope, 10/- per fm.—WHEAL SETON has very much improved in several important points, and the valuable courses of ore which have recently been laid open maintain their value and character. Their returns will be considerably enhanced, and a dividend may be expected at the next meeting.

TRENCHOM is reported to have improved in several important points. In extending a cross-cut north from the 60 they have intersected a new lode, producing good work for this.—AT PENDLE CONSOLS a new run of ore ground has entered the shaft, which is reported worth 3 tons per fm. The 130 end north is at present worth 10/- per fm., and likely to improve, as it has reached the course of ore gone down from the 115. The several other productive places are without change. Preparations are being made to carry their operations under the sea, when the sales are expected to be greatly increased. AT WEST SILVER BANK the prospects continue to be of the most interesting character, and, from a letter of a disinterested and highly respectable agent who inspected the property this week, I am informed they have opened on the back of a lode for upwards of 90 fms., and found lead of excellent quality at every point, and they have sunk the shaft about 4 fms. through a lode full 18 feet wide, which will yield from 2 to 3 tons of lead per cubic foot; indeed, he speaks of the property in terms more flattering than I should be disposed to publish.—AT WEST RHOSEMORE the have cleared the adit level to Marquis shaft, whence they propose driving 25 fms. further, to open the ground. At the bottom of the shaft they intend cross-cutting a few fathoms, in expectation cutting a lode. They are about to drive on the old lode towards the Rhosescor and Coed-y-Hendre junction, and in every fathom driving they expect to meet with the Rhosescor lode, which last year gave a clear profit of £4000/-, the attainment of which object is looked to with deep interest by all interested.

JAMES LANE.

FROM MR. EDWARD COOKE:—There has been rather more business doing this week than for some time past, still the market does not show signs of buoyancy. There is an absence of speculative feeling on the part of the public, caused probably by the disappointment they have experienced in investing in some of the many worthless concerns that have been brought before their notice by unprincipled parties, having no regard for the welfare of legitimate mining enterprise, so that they temporarily succeed in enriching themselves at the expense of the victim of their cupidity. We would not have it supposed that success is sure to attend the efforts even of the best-intentioned and well-advised promoters of mines. It is a speculative pursuit to all intents and purposes, by which for a small outlay the investor has frequently enriched himself. On the other hand, losses also frequently occur, but even these may be avoided by the selection of a proper mining district to invest in, and a due regard to the *bonds of the management* of the respective mines selected for investment. When these precautions are taken, mining property is an legitimate a means for the investment of capital as any other, and will return a larger interest, if placed into (say) six different mines, than almost any other that can be named, and a more favourable opportunity than the present has seldom occurred for buying good mining property.

WHEAL SETON shares have been dealt in to a large extent, but we believe principally on speculative account.

Contrary to our expectations, the price has receded, owing to some of the points of operation not looking quite so well, and the fear that the ore in

the 140 will not be found much deeper, according to the character of the district. It is encouraging, however, to those shareholders who have stuck to the mine, to witness the improvements that have taken place during the past six months.

WEST CARADON shares are still very low, when the merits of the mine are considered. Large returns of ore are being made, and dividends of 20/- bi-monthly may be expected for some time to come, besides the great probabilities of good discoveries being made.

The alteration of sampling bi-monthly was not occasioned by any diminution of the quantity, but from motives of policy, which was fully explained at the last meeting.

CARADON CONSOLS shares have experienced a rise of no less than 6/- per share during the past fortnight.

By referring to the map of the Liskeard district, it will be seen that this mine immediately adjoins West Caradon, but from its geological position a greater depth

is necessary to be attained than in the latter mine before it can be expected to be as productive.

If it had been worked from the commencement with the same spirit as it is at present, it would most probably have been a dividend property long ere this.

There are only 914 shares, on which about 22/- per share has been paid, and now selling at a discount.

The mine has considerably improved during the past few weeks, and the shares have been in good demand.

There is scarcely any better mine to speculate a few pounds in than this.

EAST CARADON shares have been in good request, and have advanced to 26/-.

The improvements that have taken place in WHEAL SETON are not so great as to be expected.

Contrary to our expectations, the price has receded, owing to some of the points of operation not looking quite so well, and the fear that the ore in

the 140 will not be found much deeper, according to the character of the district. It is encouraging, however, to those shareholders who have stuck to the mine, to witness the improvements that have taken place during the past six months.

WHEAL SETON shares are still very low, when the merits of the mine are considered.

Large returns of ore are being made, and dividends of 20/- bi-monthly may be expected for some time to come, besides the great probabilities of good discoveries being made.

The alteration of sampling bi-monthly was not occasioned by any diminution of the quantity, but from motives of policy, which was fully explained at the last meeting.

CARADON CONSOLS shares have experienced a rise of no less than 6/- per share during the past fortnight.

By referring to the map of the Liskeard district, it will be seen that this mine immediately adjoins West Caradon, but from its geological position a greater depth

is necessary to be attained than in the latter mine before it can be expected to be as productive.

If it had been worked from the commencement with the same spirit as it is at present, it would most probably have been a dividend property long ere this.

There are only 914 shares, on which about 22/- per share has been paid, and now selling at a discount.

The mine has considerably improved during the past few weeks, and the shares have been in good demand.

There is scarcely any better mine to speculate a few pounds in than this.

EAST CARADON shares have been in good request, and have advanced to 26/-.

The improvements that have taken place in WHEAL SETON are not so great as to be expected.

Contrary to our expectations, the price has receded, owing to some of the points of operation not looking quite so well, and the fear that the ore in

the 140 will not be found much deeper, according to the character of the district. It is encouraging, however, to those shareholders who have stuck to the mine, to witness the improvements that have taken place during the past six months.

WHEAL SETON shares are still very low, when the merits of the mine are considered.

Large returns of ore are being made, and dividends of 20/- bi-monthly may be expected for some time to come, besides the great probabilities of good discoveries being made.

The alteration of sampling bi-monthly was not occasioned by any diminution of the quantity, but from motives of policy, which was fully explained at the last meeting.

CARADON CONSOLS shares have experienced a rise of no less than 6/- per share during the past fortnight.

By referring to the map of the Liskeard district, it will be seen that this mine immediately adjoins West Caradon, but from its geological position a greater depth

is necessary to be attained than in the latter mine before it can be expected to be as productive.

If it had been worked from the commencement with the same spirit as it is at present, it would most probably have been a dividend property long ere this.

There are only 914 shares, on which about 22/- per share has been paid, and now selling at a discount.

The mine has considerably improved during the past few weeks, and the shares have been in good demand.

There is scarcely any better mine to speculate a few pounds in than this.

EAST CARADON shares have been in good request, and have advanced to 26/-.

The improvements that have taken place in WHEAL SETON are not so great as to be expected.

high in reserve. Much ore might be raised and sent to market from the mine in its present state, and a good parcel will be sold in a month's time. The practical working of the mine is in the hands of Capt. M. Francis, whose acquaintance with the Cardiganshire mines is a sufficient guarantee that everything will be done systematically, while the commercial and financial affairs will be presided over by directors, gentlemen of the highest standing and business habits. If all mines were so conducted it would be a happy thing for the investors, for with such a mine and management its position is secure, and success certain.

DRAKE WALLS.—This mine has for a long time been neglected, and, indeed, almost unnoticed by the public, as it were of but little or no value. There is no doubt, however, that a great number of distant shareholders are in some measure unacquainted with the present position of their property, which will be shown at the next general meeting, when to their surprise they will find the pleasing fact, instead of the anticipated (rumour) calls, to be in a position to receive continuous dividends. Whereas the quarterly samplings for some considerable period did not exceed 36 tons of tin ore, they are now increased to 65 tons per quarter, ending September last, leaving a profit from 700L to 800L on the past three months' working, and about 1300L in favour of the mine. In fact, the prospects generally are improved, and more particularly in the western extremity, which is in whole ground to surface. Suffice it to say, that the discoveries already made are sufficient to enable them to keep up their samplings for years to come, and by opening up and extending other levels in the same direction they will be enabled to increase their monthly returns, when confidence will be again established.

THE GAWTON COPPER MINE has very recently improved in both western points, where the lode has opened up 7 ft. wide, producing good quality ore. It is expected, by practical authority, that as soon as the principal points are again in active operation something of importance will be met with, and the shareholders handsomely rewarded for their long and patient outlay.

CLARA UNITED.—The reports from this mine evidence great energy in its prosecution. A wine from the 29 to the 32, which previous to the stoppage of the old company (now in course of liquidation) had been started, was resumed when the property changed hands, it being then down about 2 fms. This was communicated on Oct. 7, in less than two months, and has opened up a productive piece of ground for many fathoms in length, and 12 fms. high, worth quite 1 ton of lead ore of good quality per fathom. A great change, too, has been made at surface by the acquisition of the Pont-terwyd's seat; and, altogether, these united mines bid fair to come into regular samplings.

FURZE HILL WOOD MINE.—From the information that has been furnished I expected ere this to have heard of sales of tin from this mine, but I find that the engine, which was ordered some time since, has not been erected. At the time the order was given it was understood that the engine was complete and ready for working, so there can be no reason for the delay. What are the committee about?

STREET RAILWAYS, AND LOCOMOTIVE ENGINES.

Some improvements in railways for streets and common roads have recently been provisionally specified by Mr. John Arrowsmith, of Bilton; his invention consists in attaching a rack to the side of one or both rails, or fixing a rack midway between the rails; the rack in either case extending either the whole length of the line of railway, or only along those parts where there are inclines. The use of the said racks is to prevent the slipping of the wheels of the locomotive engine. With respect to engines for street and road use, he places the engine under the longitudinal seats of the first carriage, the cylinders being by preference about 6 in. in diameter, and with a stroke of about 2 ft. The connecting-rods are attached to a double-cranked shaft, on the outer ends of which he fixes a friction disc, working into grooves turned in the internal surface of the driving-wheels; he prefers to make the driving-wheels 6 feet in diameter, and on the inner face of each driving-wheel and near its periphery he fixes an annular plate, having teeth all round it, which said teeth take into the teeth of the racks on the rails. Or he fixes a toothed disc in the middle of the crank shaft, the teeth of which take into those of the rack fixed midway between the rails. Or the toothed disc may be fixed in the middle of the driving-wheel-axle, and engage with the rack between the rails. By either of the means last described the slipping of the wheels is prevented, and the whole speed of the circumference of the wheels made available for the motion of the train. Or he places the cylinders on the outside of the carriages, and make them work on to crank-pins fixed in the driving-wheels. In this case he has two connecting-rods to each cylinder, one attached to the driving-wheels, the axis of which works through movable bushes to allow for the varying lengths of the connecting-rods arising from wear; or the cylinders may each have a long slide working on its side, the said slide being secured to the piston through a slot in the cylinder. The steam is prevented from escaping at the slot by means of metallic packing. He uses the steam of high-pressure, cutting off so as to expand it at the end of the stroke to the pressure of the atmosphere, thus preventing noise from the escape of the exhaust steam. He makes the boilers tubular, and of small diameter, and either fixes them under the seats of the second carriage, or under the first carriage between the engines, the said boilers being fitted, to prevent radiation. Between the boilers he places the funnel horizontally, and creates a draught in the said funnel by means of a small fan, driven from the axle of one pair of the wheels by friction pulleys or other means. To obviate the difficulty arising in passing sharp curves, from the outer wheels having to run at a greater speed than the inner ones, the axles may be made in two parts, joined in the middle by a steel coupling-box, having collars turned inside. By these means each of the two wheels may run at any speed irrespective of the other. He works the brakes so as to make them act on the rails instead of the wheels, thus obtaining greater power with less wear on the wheels and rails; he makes the engines of steel as far as practicable, so as to ensure strength with lightness, and he also makes the framing and bodies of the carriages as far as practicable of steel plates, stiffened where necessary with angle and bar-steel.

Mr. Arrowsmith also proposes an improved apparatus for fixing the carriage window at any required height. He fixes a strip of brass or iron in which a series of holes are made, such holes extending from nearly the top to the bottom of the frame, at about 2 in. apart. In the part of the door in which the window slides is a small lever, the upper end of which is pressed by a spring against the strip of brass or iron on the window-frame. A thumb-plate connected with the said lever enables the occupant of the carriage to raise the end of the lever from the said plate. In order to fix the window at the required height the thumb-plate is pressed, and the window raised to the required position. By now liberating the thumb-plate the end of the lever is pressed into one of the holes in the brass or iron plate on the window-frame, and the window is thereby fixed. By pressing the thumb-plate the window may be allowed to fall, but the sudden fall of the window is in this case prevented by the lower end of the level pressing against the brass or iron plate in the window-frame, the same action of the thumb-plate, which liberates the upper end of the lever, causing the lower end to press upon the plate. One of the said plates with holes may be fixed on either side of the carriage window-frame, and a lever provided to engage in the plate. The levers may be worked by one thumb-plate, fixed on an axis connecting the two levers.

PREVENTION OF RAILWAY ACCIDENTS FROM COLLISIONS.—An apparatus for preventing carriages leaving the lines of rails has been provisionally specified by Mr. Fred. Roosier, of St. George's in the East; it consists in the application of an extra line or extra lines of rails, placed parallel with the ordinary rails, of a suitable form so that guard clips will pass along such rails without, however, being in contact therewith. These extra rails, if there are two, are placed by preference just inside the ordinary rails, but they may be outside if desired. The clipping or holding parts of the rails are disposed in opposite directions to each other, so as to embrace the clips on the carriages, or the reverse may be the case, and the carriage clips arranged to embrace the rails. In either case the carriage clips consist of strong rigid iron supports depending from the carriage or engine framework, the terminations of which are furnished with parts to clip or pass underneath the flange or rib of the extra safety-rail; these supports are also furnished with short pieces or surfaces, which are adapted to slide on the rail, and support the carriage in the event of the wheel coming off or breaking. Both this shod and the clip embracing the safety-rail flange are so adjusted that they travel in close proximity to the rail, but without touching. Instead of two safety-rails one only need be applied, and placed midway between the ordinary rails. The head of this mid-rail makes of a T-form, each side of which the carriage clip embraces. These clipping pieces also form safety supports for the carriages from the mid-rail. With two safety-rails he employs four (or more) clips, one at each angle of the carriage, while for the mid-rail one double at each end of the carriage is sufficient. According to this arrangement it is impossible that the engine or carriage can run off the line unless the embracing or safety-clips are torn away, which must be sufficiently strong to afford necessary resistance. In using the mid-safety rail to prevent the engine or carriages getting off the line, he furnishes the carriages with struts and shod adapted to take a bearing on the ordinary rails in the event of a wheel or wheels coming off a carriage or breaking.

WEST INDIAN ASPHALTUM.—In the *Mining Journal* of Sept. 28 we noticed a series of improvements in the treatment of certain pitch-like substances found in the West Indies, and upon several former occasions we have pointed out the very beautiful industrial products obtained from them; we have now an opportunity of judging of the profits that may be realised from the investment of capital in that direction. An English company—the Asphaltum Company (Limited)—with a capital of 100,000L, possessed of extensive mines of asphaltum near Havana, and having likewise large works both in England and Cuba for the distillation of paraffin, burning oil, and lubricating oils for machinery, from the produce of their mines, has been established about 18 months, and such was the success of only four months' working, that a dividend at the rate of 10 per cent. per annum was declared. This satisfactory result is, no doubt, attributable to the circumstances that prior to the formation of the company the commercial value of the products, and the facilities for bringing them into marketable condition, were fully tested. It has been found that upon an outlay of 42,500L (the amount which it costs to import and manipulate a ton of asphaltum in England) a return of 72,880L is obtained, the profit being equal to nearly 75 per cent., and there is a market for at least 250,000L worth of the products per annum in Cuba, where the company have a monopoly of the manufacture of oil from asphaltum, and an almost unlimited demand in England. The company's works at Millwall are at present capable of distilling about 4000 tons of asphaltum per annum, but being inadequate to keep pace with the demand for the company's products, their immediate extension has become necessary. The company has paid in full for the whole of its mines and works, and having established a large and highly lucrative business, now seeks to augment its capital for the legitimate extension of its manufacturing operations by the issue of 100,000 new shares, of 1L each, with a first call of 12s. per share; a large number of these shares are already taken by the holders of the old shares. The statistics published by the company show upon the lowest average results of the working operations a profit of 20 per cent. per annum upon the whole capital of 200,000L. The direction is composed of gentlemen of high standing and position in the commercial world, and they, as well as the engineer and manager, are remunerated for their services by a percentage upon profits in lieu of fixed payments, an example we should be glad to see followed in other undertakings.

THAMES TUNNEL COMPANY.—Receipts for the week ending October 26, 61L. 3s. 2d., number of passengers, 14,678.

WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR LETTERS PATENT.—**Enoch Chambers**, Melbourne, Victoria, ironfounder, for an invention "Of the use of hydraulic power for the breaking, crushing, or pulverising of quartz, bluestone, or other stone or mineral of any description, and the use of a wrought-iron lever or jaw in machines for crushing quartz or any other mineral, and the use of steel teeth and steel shield pieces for the levers or jaws in such machines." Complete specification.—**Edward Green and Edward Green, Jun.**, Wakefield: Apparatus for generating, superheating, and condensing steam.—**Henry Gilson**, Maen-Offeres Slate Quarries, Feathinog: Slate-dressing machines for cutting and trimming the edges of slates.—**JAMES LONG**, Gunpowder Works, Dartmoor: Gunpowder for blasting.—**F. Whrigley**, Manchester: Railway wheels and wheel tyres.—**B. PREDAVALLE**, Fleet-street: New mode of and apparatus for producing and obtaining an hydro-pneumatic motive-power.

TREATING METALLIC ORES.—**Mr. R. Laing**, of Ince, near Wigan, proposes to place the waste ore, after it has been treated for sulphuric acid, in kilns, and to pass steam through it. The copper is obtained in solution, and precipitated by the usual means.

NEW SYSTEM OF LIGHTING AND HEATING.—**M. Delabot-Sevin** has made a discovery which will probably produce a revolution in the system of lighting and heating public and private buildings. He has invented a new pile, much stronger, and at the same time much cheaper, than the pile of Bunsen. By means of his photo-electric apparatus he produces an electric light as cheap as gas, and with his thermoelectric pile he supplies calorific on economic terms hitherto unknown. Several of these apparatus have been constructed, and one is at full work in the Abbaye de la Grace-Dieu. Manufacturers for the public are shortly to be established in Paris and at Lyons. The apparatus for producing gas will not be given to the public until after the Exhibition at London next year, but that for heating buildings will be made public on Dec. 16. The inventor has been authorised to make public experiments with his system of lighting on the Place Saint Jacques, in Paris, and on the place Bellecour, at Lyons.

PREVENTING INJURY TO STEAM-BOILERS.—To prevent the burning of steam-boilers, and at the same time to secure the circulation of the water and facilitate the formation of steam, **Mr. J. Haussel**, of Vienna, proposes the introduction of a small turbine into the interior of the boiler.

Obtaining Motive-Power.—**Mr. Main-Guillon**, Fontenay-le-Comte, Vendée, proposes by means of a steam-engine, water-wheel, or horse-power to set in motion a driving-wheel and pulleys. One of these pulleys will work a pump, which is to raise water to rotate a wheel, which is to assist the steam-engine, and economise fuel.

DRILLING AND BORING METALS.—An invention, which applies principally to the forming of holes through metal of moderate thickness, has been provisionally specified by Mr. S. Perkins, of Gorton Works, near Manchester; it is intended more particularly as a substitute for the centre drill and boring bar, its object being to save time, labour, power, and material in the forming of holes in metal, by making an annular cut, so that the centre part of the metal in which the hole is to be formed can be removed solid, or with only a small hole in it, instead of being entirely cut away, as in the ordinary method of drilling or boring. The means by which he makes the annular cut is this—a shaft or axis, one end of which is formed into a cone centre, this shaft forms the axis of a hollow shaft or boss, to which cutters of suitable shape for cutting the annular space in the metal, of the size of the hole required, are secured. The conical end of the central shaft or axis is placed and pressed against a centre or hole formed in the centre of the metal, around which the annular cut is to be made; the hollow shaft carrying the cutter is then rotated by any suitable means, and at the same time is made to slide endways along the central shaft or axis, so as to feed the cutters, as the metal is removed by them from the annular space. He prefers to make the central shaft or axis to rotate with the hollow shaft carrying the cutters, but it may be made stationary. This tool may be used in the common drilling or boring machine, and in the lathe and otherwise, and may also be used when the metal to be cut is rotated, and the tool is without rotating motion.

IMPROVEMENTS IN FIRE-ARMS.—The following inventions (not patented) by Mr. James Bruce (late 332 Regt.) have recently been perfected:—An ingenious little instantaneous-light machine, to supersede percussion caps, in which, by an air-tight piston moving in a cylinder, the air contained therein becomes so much compressed as to give out its calorific in the state of sensible heat or fire, for the purpose of exploding rifles; the cylinder is concealed in the stock of the piece, and the piston is moved by a strong helical spring.—Mr. Bruce's Steam Cannon consists in a steam-boiler, having the form of an alembic, and holding numerous pots; it rests upon a frame having four wheels. The tube (or cannon) which receives the balls through a funnel is fixed by some mechanism to the right of the furnace. In fifteen minutes the steam is sufficiently raised to bring the engine into play. Each movement of the handle disengages a ball, and the discharges succeed each other as quickly as desired. Mr. Bruce expects to bring this machine to a much higher degree of perfection, and the details will then be communicated to the public.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 11th Nov., next, to RECEIVE PROPOSALS IN writing, sealed up, from such persons as may be willing to SUPPLY—

STEEL. And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 11th day of November, 1861, after which hour no tender will be received.

GERALD C. TALBOT, Director-General.

BRECON AND MERTHYR TYDFIL JUNCTION RAILWAY.—The Directors of this company are PREPARED TO RECEIVE PROPOSALS FOR LOANS ON DEBENTURES, for three, five, or seven years, in sum of £100 and upwards, bearing interest at the rate of 5 per cent. per annum, payable half-yearly.

Application to be made to Mr. PHILIP WOOLLEY, stockbroker, 26, Tokenhouse-yard, Holborn; or to the secretary of the company, Mr. JOHN WILLIAMS, Brecon.

TO IRONMASTERS, FORGE PROPRIETORS, ENGINEERS, &c.—A GENTLEMAN thoroughly CONVERSANT with the CONDUCTING OF BLAST FURNACES AND IRONWORKS, the details of steam-hammer forges, and the getting up of all descriptions of heavy and general forge works for steam ships, engineers, &c., and who is a thorough PRACTICAL ENGINEER, recognised as a successful manager and leader of the varied classes of men in iron manipulation, &c., DESIRES EMPLOYMENT. To a company or any gentleman requiring confidential practical aid in the management and conducting of extensive works, the advertiser's extended and varied experience and antecedents would prove valuable. The highest testimonials and references can be given as to ability, moral integrity, and general business habits.—Address, "B," Mining Journal office, 26, Fleet-street, London, E.C.

TIN MINE IN CORNWALL.—FOUR GENTLEMEN, having spent a few hundreds of pounds in EXPLORING A PIECE OF MINERAL GROUND IN ONE OF THE BEST TIN DISTRICTS IN CORNWALL, and having DISCOVERED therein TWO VERY FINE TIN LODES, producing RICH TIN ORES, are DESIROUS of being JOINED by OTHERS who will expend a similar sum, with themselves, to bring the mine into a profitable state. Or they will SELL THE SETT, taking shares with any respectable company that may be formed for working the same.—Communications, treating for the same, or requesting permission to inspect, may be addressed to Capt. JAMES THOMAS, East End, Redruth.

VALUABLE TIN MINE.—A FEW GENTLEMEN have SPENT A LARGE SUM OF MONEY IN OPENING AN EXCELLENT TIN MINE IN CORNWALL, and there is no doubt that it will soon give large profits. An INTEREST THEREIN, and also in TWO OTHER FIRST-RATE MINES in full working, certain soon to pay well, MAY BE OBTAINED by bona fide investors in bonds of £1000 each, on application to JAMES HOLLOW, Mining Offices, Lelant, Hayle, Cornwall, and 1, Crown-court, Old Broad-street, London, E.C.—September 13, 1861.

CARMARTHEN UNITED LEAD MINING COMPANY (LIMITED).—Notice is hereby given, that an ORDINARY GENERAL MEETING of the shareholders of the Carmarthen United Lead Mining Company (Limited) will be HELD at their offices, No. 30, Great Winchester-street, London, E.C., on TUESDAY, the 5th day of November next, at Two o'clock P.M., for ordinary business purposes.

W. DARLING, Secy.

CLARA SILVER-LEAD MINING COMPANY (LIMITED).—Notice is hereby given, that the following SPECIAL RESOLUTION was PASSED by the shareholders of this company at an EXTRAORDINARY GENERAL MEETING, held at the office of the company, 2, Cophill-buildings, on Monday, the 22nd day of July, 1861:—That the affairs of the company be forthwith wound-up voluntarily, and that Messrs. J. B. Balcombe and John Rowlands be appointed liquidators, in accordance with the provisions of the Joint-Stock Companies Act. And that such resolution was confirmed at a further extraordinary general meeting, held at the same place, on Monday, the 26th day of August, 1861.

And notice is hereby further given, that all CREDITORS of the said company are REQUIRED TO SEND in their ACCOUNTS against such Clara Silver-Lead Mining Company (Limited) to me, as solicitor to the said liquidators.

30, Walbrook, London, E.C., October 31, 1861.

E. A. MARSDEN.

DRAKE WALLS MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of the shareholders in this company will be HELD at these offices, on TUESDAY, the 12th November next, at Two o'clock P.M., precisely.

HIRAM WILLIAMS, Secy.

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY (Incorporated by Royal Charter).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, London, on MONDAY, the 4th of November next, at Two o'clock, for the purpose of electing a director to fill the vacancy occasioned by the decease of George Drew Keogh, Esq.

At this meeting it will also be proposed to elect an additional director.

The following gentlemen will be proposed:—Edmund Westby, Esq., of 15, New Broad-street, and Portland-place (late of Melbourne); Henry Moor, Esq., of Clarendon-terrace, Brighton (late of Melbourne); Charles H. FIELDER, Secy., Offices, 35, Bucklersbury, Cheapside, E.C., October 26, 1861.

Price 6d., or post free seven stamps.

INDIAN RAILWAY AND INDUS FLOTILLA GUARANTEES.—examined and found to be delusive, with extracts from the Official Contracts. Second Edition, with an Enquiry into the Validity of Debentures.

By JAMES MILLS.

Lettis, Son, and Co., 8, Royal Exchange.

It is important for investors to know that this quarry has been developed by the hard-earned savings of a few working quarrymen from the Feathinog districts, who were attracted to it by reports of its value. It is now offered to the public at less than the cost of present outlay, solely in order to obtain capital to continue the workings.

THE DULAS SLATE AND SLAB COMPANY (LIMITED).

LLWYNGWERN, NORTH WALES.

No shareholder is liable beyond the actual amount of his own shares.

Capital £18,000, in 3000 shares of £2 each, with power to increase or decrease.

10s. deposit to be paid on application; 10s. further to be paid on allotment.

OFFICES,—166, GRESHAM HOUSE, OLD BROAD STREET, E.C.

PROSPECTUS.

The Dulas Slate and Slab Quarry is offered to the public as an investment.

SANTA BARBARA GOLD MINING COMPANY (LIMITED),
IN THE PROVINCE OF MINAS GERAES, BRAZIL.

Incorporated under the Joint-Stock Companies Acts.
Capital £60,000, in 60,000 shares of £1 each.

5s. per share to be paid on application, and 5s. per share three months after allotment.

DIRECTORS.

JOHN EDWARD NAYLOR, Esq., Merchant, Liverpool.

WILLIAM HARRISON, Esq. (Messrs. Harrison's and Latham), Liverpool.

FRANCIS J. JOHNSTON, Esq. (Messrs. Edward Johnston, Son, and Co.), Liverpool.

CHAS. F. CARNE, Esq. (Messrs. Carne and Co.), Liverpool.

GEO. KENDALL, Esq. (Messrs. Kendall Brothers), Liverpool.

(With power to add).

AUDITOR.—H. C. Beloe, Esq.

BANKERS.—The Commercial Bank of Liverpool; Williams, Deacon, and Co., London.

SOLICITORS.—Messrs. Fletcher and Hull.

AGENTS IN RIO DE JANEIRO.—Messrs. E. Johnston and Co.

BROKERS.—Messrs. Thus. Tinley and Sons, Liverpool; Messrs. Walker and Lumden,

25, Austinfriars, London.

SECRETARY.—H. D'Arcy Hughes.

OFFICE OF REFERENCE IN LONDON.—E. J. Cole, Esq., 2, New Broad-street.

TEMPORARY OFFICES.—25, EXCHANGE ALLEY NORTH, LIVERPOOL.

The object of this company is to purchase and work the Pari Gold Mine, which, with the estate included in the purchase, is situated in the province of Minas Geraes, in the district of Piracatu, in the parish of Santa Barbara, in the Brazil.

The property, which is freehold, is timbered, and intersected by a river convenient to the mine, and is of great extent, through which runs a rich auriferous vein well known as the Pari lode. The formation and mineralogical characteristics of this lode are similar to those of Morro Velho, worked by the St. John del Rey Mining Company.

The yield from the present workings is remunerative; but there is every indication that, with ample capital to develop it, the lode will increase as it deepens, and become far more productive. The company propose to work the mine on a more extended scale, and substitute English machinery for that of native manufacture now in use at the mine; and it is anticipated that the result will prove the mine to be equal to any in the Brazil.

The reports for 1860 of the St. John del Rey Mining Company, whose works are situated in the same province, at a distance of about fifty miles, show that they have been worked to great advantage, notwithstanding the difficulties and extraordinary outlay and losses they have encountered in consequence of their peculiar position. The produce of gold for the year ending March 19, 1861, left a clear profit of £60,460; and later returns show that a much larger profit may be expected in the current year. The value of that company's property in the market is now upwards of £500,000.

The reports obtained prove that the Pari Mine is so favourably situated that it can be worked at a comparatively trifling cost, and that the yield of gold will equal, if not exceed, in quality that produced by the St. John del Rey Mining Company.

Particulars of the assays of the gold quartz taken from the Pari Mine are appended to the prospectus.

Arrangements have been made for the purchase of the estate for the sum of £12,000: £800 in cash and £4000 in shares.

From careful estimates made it is expected that a sum of £15,000 will suffice to put the mine into a more profitable working order—making, together with the purchase-money, a sum of £50,000, thus leaving one-half of the proposed capital still available should it be required.

The directors have secured the services of Capt. R. S. Bryant, of Hayle, Cornwall, who for many years resided in Brazil, and who is fully acquainted with the gold mining operations carried on in that country, as their superintendent.

Applications for shares can be made, prospectus, reports, and estimates obtained, and all required information given at the company's offices, 25, Exchange-alley North, Liverpool. Prospectuses and forms of application for shares can also be had from Messrs. TOS. TINLEY and Sons, Orange-court, Castle-street, Liverpool; Messrs. WALKER and LUMDEN, 25, Austinfriars, London; the Commercial Bank of Liverpool; and Mr. E. J. Cole, 2, New Broad-street, London.

NORTH POOL COPPER MINING COMPANY.
To be incorporated under the statutes limiting shareholders' liability

to the amount subcribed.

Capital £24,000, in 6000 shares of £4 each.

Deposit, 2s. 6d. per share on application, and 2s. 6d. per share on allotment.

The remainder by quarterly instalments of 5s. per share, as required for working the mine, of which due notice will be given.

Directors to be chosen by shareholders at the first meeting.

BANKERS.—Messrs. Bolithos, Sons, and Co., Penzance, Cornwall.

SOLICITOR.—F. W. Snell, Esq., 1, George-street, Mansion House, London, E.C.

AUDITORS.—Messrs. Cooper Brothers, and Co., 13, George-street, Mansion House, London.

MANAGING AGENT.—Capt. Thomas Faul, late manager of Limerick and other home and foreign mines, now of Camborne, Cornwall.

ENGINEERS.—Messrs. Mitchell and Jenkin, Redruth, Cornwall.

SECRETARY.—J. S. Phillips, 12, St. Michael's-alley, Cornhill, London.

OFFICES.—7, GEORGE YARD, LOMBARD STREET, LONDON, E.C.

A grant to rework the extensive sett called North Pool, Illogan, Cornwall, has been obtained at £20 per annum minimum rent, and 1-18th maximum dues.

The geological position of North Pool is unsurpassed by any mine in the kingdom, being situated about $\frac{1}{2}$ mile north of, and parallel to, the celebrated granite hill Carn Brea, around which six square miles have produced at least £6,000,000 sterling profits, by the comparatively small outlay of about £600,000, and more mineral wealth than has been returned by all the other mines of Devon and Cornwall by tenfold outlay.

It is a very extensive sett, Cook's Kitchen (and other mines) being only about one-fourth as long on the lode, although it has been at work upwards of 200 years, and even now about to become a rich tin mine in depth.

Its immediate neighbours are, on the north and east, the Tolgoes; southward, Wheal Agar, East Pool, Carn Brea, and Tin-croft; and westward, the Crofts, Seton, and North Roskarn Mines.

North Pool has been worked once, but only to a very limited extent (£61,450 profits were made in eight years, at a cost of only £8180, in about 100 fms. long, and above the 80 fm. level), whereas several of the best mines of this district have been re-worked twice and thrice most profitably, to the depth of from 200 to 300 fms., and still continue very rich and promising, although much less so for the ground first wrought thereon.

The promoters consider the old mine a good speculation in depth; but as it is at least 19-20ths of this lode in such a long sett is quite unexplored at a fair mineral depth, and moreover, four side lodes, almost entirely unworked, they confidently believe it to be an unusually valuable property, and eminently deserving attention and trial.

Two good engines—a 70-hp. for pumping, and a 28-inch for winding and crushing—will be ample sufficient to work the engine and side lodes to a proper depth, and long before this capital is fairly expended good results will, in all probability, be attained.

Much work has been executed that will speed progress, such as roads, floors, and well-timbered shafts, at a cost of many thousands, which are immediately available for future operations; and the Hayle and Portreath Railway passing through the mine will greatly facilitate the transit of materials and minerals.

The limited liability has been adopted, as a guarantee of good faith to the large portion of the public who prefer it to the unlimited (and sometimes abused) Cost-book System; and to counteract the greatest evil of the former £24,000 is intentionally more than sufficient.

All money will be withdrawn from the bank by cheques signed by two or more directors and the secretary.

The promoters agree to accept 300 fully paid up shares (as a guarantee of their confidence), and 2s. 6d. per share cash, for the sett, and which shall clear all the preliminary expenses of incorporation, travelling, reporting, mapping, printing, law costs, advertising, and broker's commission, with grants and leases.

Reports with sections and plans of the sett and neighbouring mines were published in the *Mining Journal* of Oct. 5, 1861, from which the most sceptical will see and allow its merits, and that no more has been stated than plain statistical facts will most amply verify.

Applications for prospectus and form of order for shares to be addressed to the secretary.

EXTRACTS FROM REPORTS.

W. BOWDEN, Manager of Camborne Vein, and late agent at North Pool Mine.

Sept. 10, 1861.—I have been engaged in North Pool Mine upwards of eleven years, during which period it made £61,450 profit from the adit to the 72, having an almost continuous bunch of copper ore for about 100 fms. in length. I should more particularly call the attention of those embarking in this speculation to the western part of this sett, on the engine and side lodes, which part was totally neglected by the late workers. The stratum and indications, as far as seen, are precisely similar to the old mine, where such large deposits of ore existed; and I, therefore, see no reason why you may not have as good a mine here as the old mine and further east. This sett lies on the same run of the Tolgoes on the east and Seton on the west, and being in such a good locality is a speculation rarely to be met with. In conclusion, I may say that as only about 200 fms. long have been explored at a fair mining depth, and that as the sett is 900 fms. long, and contains five lodes, exceedingly little has been worked for this rich district, therefore it is highly probable that many other bunches of ore may be discovered, that will, I have no doubt, lead to large profits; and I can highly recommend it to the mining community.

J. DAW, Manager of Carn Brea Mines, &c.

Sept. 12, 1861.—I beg to hand you my report of North Pool Mine. This mine is situated in the parish of Illogan, and is bounded on the east by South Tolgoe, which is on the same run of lodes, and has given great profit to the adventurers—on the west by North Croft and Wheal Seton. The sett is very extensive, it being about 900 fms. long and 200 fms. wide, with four or five parallel lodes traversing its entire length. These are intersected by cross-courses and elevans, with patches of iron or greenstone. About 500 fms. east of the western boundary a shaft is sunk through the great north lode at 12 fms. below the surface, where it is large, and spotted throughout with copper ore. Looking at the situation of this mine, I consider it to be more than an ordinary speculation, having such a long piece of unexplored ground in this highly mineralised district, and on lodes which have been so productive in the mines to the east and west, so I think it will worth the attention of capitalists.

J. VIVIAN, Manager of North Roskarn, North Croft, &c.

Sept. 11, 1861.—In reply to yours of yesterday, I am well acquainted with the district of North Pool Mine, and believe it to be a first-rate piece of mining ground.

W. PASCOE, Manager of South Frances, &c.

July 25, 1861.—In reply to your kind favour of the 22d inst., respecting the above mine, I beg to say that I know but little about the old workings, but I believe with you that there is an extensive piece of untried ground to the north and west of the old mine, which is such a good locality, ought to be tried. I think you very fortunate to get the sett, and wish you every success in the undertaking.

W. H. REYNOLDS, Manager of Great Retalack, Wheal Unity, &c., of Messrs. Watson and Cawell's.

Sept. 3, 1861.—I am glad to find that you have secured the sett of North Pool Mine, and I know of no ground in the district lying idle that is so deserving of attention. It is an extensive sett, being about 900 fms. long by 200 fms. wide, and traversed by at least five lodes, some of which I suppose to be those of South and Old Tolgoe on the east, and the Setons on the west. The most important feature, however, is that there is upwards of half a mile of unexplored ground between the late workings and the Seton Mines; and, judging from the general productiveness of these lodes, it is highly probable that in this ground valuable discoveries may be made. When we look at the very rich locality in which this mine is situated, and the immense returns made from so small a portion of the sett, it certainly does appear that the prospects of the speculation are unusually good.

G. RICKARD, Manager of Great Onslow Consols.

Sept. 26, 1861.—I have considered the feasibility of North Pool sett as a speculation for further working, and, taking into consideration the fact that very extensive and profitable mines have been, or are being, worked at both ends of the property, the recent richness of the mine itself, the rich locality, and great extent of unexplored ground in the sett, there does not appear to me any sound reason why the unexplored portions of

the engine lode, as well as any parallel lodes, may not prove profitably productive; and I consider if these lodes are properly worked there is a very fair chance of success.

M. EDWARDS, late Manager of Wheal Kitty, &c.

Sept. 3, 1861.—The extensive and valuable mining property of North Pool is situated in the parish of Illogan, and is closely surrounded on the south, east, and west by some of the most productive and profitable mines in Cornwall. These lodes, however, run the entire length of the sett, and as there is a large amount of unexplored ground in the western part of it I would strongly recommend you to commence operations there, open the lodes, and give it a vigorous and spirited trial. For this purpose only a moderate amount of capital will be required, which, in my opinion, will not fail, if judiciously laid out, to make a lasting and profitable mine.

An early application should be made to secure shares, which are being rapidly taken up.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE CRANE MINE.

TO BE SOLD, pursuant to an Order made in a Cause of Matthews v. Michell and Others, dated the 30th day of July last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 13th day of November next, at Twelve o'clock at noon precisely.

10 (908th) SHARES of the defendant Richard Michell.

10 (908th) SHARES of the defendant William Michell.

10 (908th) SHARES of the defendant Joseph Michell; and

5 (908th) SHARES of the defendant John Pengelly Endean,

Of and in the said MINE. **HODGE, HOCKIN, AND MARRACK**, Truro (Agents for S. T. G. Downing, Plaintiff's Solicitor, Redruth). Dated Registrar's Office, Truro, October 30, 1861.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE WEST WHEAL PROVIDENCE MINE.

TO BE SOLD, pursuant to an Order made in a Cause of Robinson v. Sanderson and others, dated the 14th day of August last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 13th day of November next, at Twelve o'clock at noon precisely.

8 (124th) SHARES of the defendant Joseph Smyth.

2 (124th) SHARES of the defendant William Cooper.

10 (124th) SHARES of the defendant Edward Hedges.

26 (124th) SHARES of the defendant Thomas Fuller; and

5 (124th) SHARES of the defendant Henry John Dodwell,

Of and in the said MINE. **HODGE, HOCKIN, AND MARRACK**, Truro (Agents for H. G. Hill, Plaintiff's Solicitor, 17, Barge-yard Chambers, Bucklersbury, London). Dated Registrar's Office, October 30, 1861.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE NEW WHEAL VADDON MINE.

TO BE SOLD, pursuant to an Order made in a Cause of Dingle v. Young and Others, dated the 14th day of September last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 13th day of November next, at Twelve o'clock at noon.

261 (2048th) SHARES of the defendant Stephen Roberts; and

250 (2048th) SHARES of the defendants John Alvin Bowes and William Teale Belchingham,

Of and in the said MINE. **HODGE, HOCKIN, AND MARRACK**, Plaintiff's Solicitors, Truro. Dated Registrar's Office, Truro, October 31, 1861.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN RE WEST TOLVADDEN MINE.

TO BE SOLD, pursuant to an Order made in a Cause of Dingle v. Young and Others, dated the 14th day of September last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 13th day of November next, at Twelve o'clock at noon.

15 (5120th) SHARES of the defendant Joseph Gregory.

10 (5120th) SHARES of the defendant Thomas Lewis.

230 (5120th) SHARES of the defendant John Macqueen; and

500 (5120th) SHARES standing in the

BEDFORD IRONWORKS, TAVISTOCK.

NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

B AILEY'S PATENT STEAM GAUGE.—This truly valuable invention is most undoubtedly the only gauge ever invented not affected by those atmospheric changes and many other evil influences, which are the bane of all spring, mercurial, and compressed air gauges.

The grand principle of the gauge being founded upon that sublime law of nature, "GRAVITY," which like all other natural laws, is unerring and unchangeable—it must continue to indicate correctly to an indefinite period of time.

After most critical trials and examinations by some of the most eminent locomotive and stationary engineers, mining and manufacturing companies in this kingdom, it is pronounced by them to be "THE ONLY TRUE INDICATING GAUGE NOW IN EXISTENCE."

HEAD OFFICES, 30, COOPER STREET, MANCHESTER. MR. WM. TATE, Sole Wholesale Agent.

MANUFACTORY, ALBION TURRET CLOCK WORKS, SALFORD, MANCHESTER.

I NCRUSTATION OF STEAM BOILERS.—EASTON'S PATENT BOILER FLUID EFFECTUALLY REMOVES AND PREVENTS INCRUSTATION IN STEAM BOILERS, WITHOUT INJURY TO THE METAL, WITH GREAT SAVING IN FUEL, AND WITH LESS LIABILITY TO ACCIDENT FROM EXPLOSION. It is used by Her Majesty's Steam Shores, Woolwich Arsenal, Honourable Corporation of Trinity House, Tower of London, India Store Department, by the principal Steam Packet Companies of London, Liverpool, Southampton, Hull, &c., and by engineers, builders, railway companies, and manufacturers throughout the country. Testimonials from eminent engineers, boiler makers, and manufacturers, with full particulars, will be forwarded on application to P. S. EASTON and G. SPRINGFIELD, sole manufacturers and patentees, Nos. 37, 38, and 39, Wapping-wall, London, E.

AGENTS IN GREAT BRITAIN.

Leeds, Mr. James F. Wood. Arundel-under-Lyne, Mr. S. G. Fielden. Belfast, Mr. W. T. Matier, C.E. Birmingham, Mr. Adam Dixon. Chester, Mr. W. A. Rowland. Devonport, Mr. Cornelius Boulds. Dublin, Mr. Wm. Fifth. Frome, Mr. W. B. Harvey, Chemist. Glasgow, Mr. W. Matrie. Hartlepool, Mr. W. T. Cheeseman, West Hartlepool. Hull, Messrs. A. L. Fleming and Co.

FOREIGN. Rio de Janeiro, Messrs. Miers Brothers and Mayors, Engineers. Odessa and South Russia, Mr. W. Baxter, Engineer, Nikoloffe.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

BUTLIN'S APPARATUS FOR SUPERHEATING STEAM.—by which means a SAVING of THIRTY PER CENT. in the CONSUMPTION of FUEL is EFFECTED, TWENTY-FIVE PER CENT. LESS WATER is REQUIRED to FEED BOILERS, A GREAT INCREASE of POWER is OBTAINED, and the BOILER is RENDERED MORE DURABLE. The above patent can be applied to any boiler, either new or old, and to every description of engine. Most extraordinary reports have been received from parties who have used it, equally satisfactory to the following letters, and any further particulars may be obtained by applying to the patentee, W. BUTLIN, VULCAN WORKS, WESTON STREET, NORTHAMPTON.

TESTIMONIALS.

Leadenhall-street, London, E.C., July 3, 1860.

DEAR SIR,—Having applied your patent steam superheater to the boiler of our steamship, *City of Nantes*, we have great pleasure in being able to state that your apparatus effects a saving of at least 30 per cent. in the consumption of fuel, besides giving additional speed upon the screw. We do not hesitate in giving our opinion that your invention is a most important one, and one which must come into general use. We approve of your arrangements for admitting saturated steam with the superheated, to regulate the temperature at pleasure. Your plan of filling the heater with water during the time steam is being got up we think is quite a new idea, and remedies one of the great objections to superheaters generally—the rapid destruction of the tubes by the fire while steam is getting up. You are at liberty to make what use you please of this letter, as we think so valuable an invention ought to be made known to the steam shipping interests of this country. We are, dear Sir, your's truly,

W. Butlin, Esq., Northampton.

LANGTON AND WILSON.

Little Houghton, Northampton, July 29, 1861.

Naseby, Northampton, Aug. 24, 1861. DEAR SIR,—We have given our engine a sufficient test, both in thrashing and sawing, since the introduction into it of your superheater, to enable us to speak confidently of the great improvement made by the alteration. We believe that your advertisements do not exaggerate the excellence, in any respect, of your patent. Many respectable parties who witnessed the working of the engine are willing to bear testimony to the truth of our statements. We remain, dear Sir, yours very truly,

SMITH AND THURSTON.

Naseby, Northampton, Aug. 24, 1861.

SIR,—I have much pleasure in being able to state that since your patent steam superheater has been applied to my engine I find a considerable reduction in the consumption of fuel, much less water is required to feed it, and a great increase of power is obtained. I am much pleased with the alteration. Yours truly, L. WILFORD.

Earl's Barton.

SIR,—I am well satisfied with the alteration made in my engine, as it takes less coal and water since your heater has been introduced into it.

Yours truly, CHRISTOPHER COLEMAN.

A U S T R A L I A A N D N E W Z E A L A N D
WHITE STAR EX-ROYAL MAIL CLIPPERS,
SAILING FROM

LIVERPOOL to MELBOURNE on the 1st and 20th of every month.
* Passengers holding Victoria passage warrants will be forwarded to Melbourne by these vessels.

Ship. Captain. Register. Burthen. To sail.
CHARIOT OF FAME KERR 1698 4750 Oct. 25.
LORD RAGLAN ROPER 1900 5500 Nov. 20.
BLUE JACKET CLARKE 1074 3300 Dec. 20.

The *Chariot of Fame* was built by Donald M'Kay, who constructed the *Lighting*, *Stag-hound*, and other famous clippers. She is one of the fastest and handsomest ships in the world, and has made some of the quietest passages on record. Her saloons are elegant, and found with bedding, linen, piano, &c.; carries a cow. Her second cabin and other accommodations are unsurpassed.

For freight or passage apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., 124, Bishopsgate-street, and 58, Parliament-street; or SEYMOUR, PEACOCK, and Co., 116, Fenchurch-street, London.

Willcox's Australian and New Zealand hand-books sent for two stamps.

A L B E R T A N D M E D I C A L L I F E A S S U R A N C E,
7, WATERLOO PLACE, PALL MALL, LONDON, S.W.

ESTABLISHED 1838.

The business of the Medical, Invalid, and General Life Assurance Society having been amalgamated with the Albert Life Assurance Company, the united business will henceforth be carried on under the above title.

Accumulated fund exceeds £500,000
Subscribed capital 447,180
Paid-up capital 137,000
Annual income from life premiums, upwards of 220,000

The new business is now progressing at the rate of more than £25,000 per annum.

From Prof. De Morgan's report upon the last valuation of liabilities (end of 1858), and the statements of accounts, it appeared at that time that the surplus in favour of the Albert business alone, after providing for every liability, was £192,925 2s. 1d.

HENRY WILLIAM SMITH, Actuary. C. DOUGLAS SINGER, Sec.

I N V E S T M E N T S I N B R I T I S H M I N E S.—Mr. MURCHISON publishes a QUARTERLY REVIEW OF BRITISH MINING, giving at the same time the POSITION and PROSPECTS of the MINES at the end of each Quarter, the DIVIDENDS PAID, &c.; price One Shilling. RELIABLE INFORMATION AND ADVICE will, at any time be given by Mr. MURCHISON, either personally or by letter, at his Offices, No. 117, BISHOPS-GATE-STREET WITHIN, LONDON, where copies of the above publication can be obtained.

OPINIONS OF THE PRESS ON MR. MURCHISON'S WORK ON BRITISH MINING, PUBLISHED IN 1856.

Mr. Murchison's new work on mining is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—*Mining Journal*.

The book will be found extremely valuable.—*Observer*.

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—*Morning Herald*.

A valuable little book.—*Globe*.

Of special interest to persons having capital employed, or who may be desirous of investing in mines.—*Mining Chronicle*.

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—*Derby Telegraph*.

Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison.—*Leeds Times*.

To those who wish to invest capital in British Mines, this work is of the first importance.—*Welschman*.

This is really a practical work for the capitalist.—*Stockport Advertiser*.

This work enables the capitalist to invest on sound principles; in truth, it is an excellent guide.—*Plymouth Journal*.

All who have invested, or intend to invest, in mines, would do well to consult this very useful work.—*Ipswich Express*.

Persons desirous to invest their capital in mining speculations will find this work a very useful guide.—*Warwick Advertiser*.

We believe more useful publication, or one more to be depended on, cannot be found.

Plymouth Herald.

It is fully and carefully compiled and reliable information relative to all the known mines of the United Kingdom.—*Sheffield Free Press*.

Of great value to capitalists.—*Sunderland Times*.

This is really a practical work for the capitalist.—*Stockport Advertiser*.

Every person connected, or who thinks of connecting himself, with mining speculations should possess himself of this book.—*North Wales Chronicle*.

Mr. Murchison will be a safe and trustworthy guide, so far as British Mines are concerned.—*Bath Express*.

A very valuable book.—*Cornwall Gazette*.

All who have invested, or intend to invest, in mines should peruse this able work.

Is deserving the attention of every one who seeks profitable investment of his capital.—*Brighton Examiner*.

THE MINING JOURNAL.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM, BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS, IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—JONATHAN KETLEY, SOHO CARRIAGE AND WAGON WORKS, NEAR BIRMINGHAM. ALL DESCRIPTIONS OF RAILWAY WAGONS FOR SALE OR HIRE. MANUFACTURER OF ALL KINDS OF RAILWAY IRONWORK.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS, ON SALE OR HIRE, AT THE ROTHERHAM WAGON WORKS, MASBRO.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS RAILWAY WAGONS FOR HIRE. Apply to the SECRETARY, 3, Newhall-street, Birmingham.

THE MIDLAND WAGON COMPANY, BIRMINGHAM, RAILWAY TRUCKS ON HIRE OR SALE. BENNETT'S-HILL, BIRMINGHAM, October, 1861.

THE RAILWAY CARRIAGE COMPANY, OLD BURY, NEAR BIRMINGHAM. MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK. NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK.

LONDON OFFICES.—No. 1, MOORGATE.

TRADE MARK JAMES RUSSELL AND SONS, CROWN TUBE WORKS, WEDNESBURY, STAFFORDSHIRE.

WAREHOUSE.—81, UPPER GROUND STREET, BLACKFRIARS, LONDON, S. THE ORIGINAL INVENTORS OF WROUGHT IRON TUBES FOR GAS, WATER, &c. LAP-WELDED BOILER TUBES, HOMOGENEOUS TUBES FOR BOILERS, &c. GALVANISED AND ENAMELLED TUBES, SCREWING TACKLE, STEAM AND WATER GUAGES, and EVERY VARIETY OF FITTINGS.

J O B TAYLOR AND CO., SWAN FOUNDRY, OLD BURY, NEAR BIRMINGHAM, SOLE PROPRIETORS OF HINTON'S PATENT CUPOLA, which CONSUMES FIFTY PER CENT. LESS COKE than any cupola yet invented. MAKERS OF ALL KINDS OF MACHINERY connected with the GRINDING and TEMPERING of EVERY SORT OF CLAY or MARL, and for the MANUFACTURE of BRICKS, TILES, DRAIN PIPES, &c. Also, of HIGH and LOW PRESSURE STEAM ENGINES of any dimensions, and of GENERAL MACHINERY.

L O Y D AND L O Y D, A L B I O N T U B E W O R K S, BIRMINGHAM, MANUFACTURERS OF PATENT LAP-WELDED IRON TUBES, FOR LOCOMOTIVE, MARINE, AND STATIONARY BOILERS.

IMPROVED HOMOGENEOUS METAL TUBES.

ALL DESCRIPTIONS OF TUBES AND FITTINGS FOR GAS, STEAM AND WATER, PLAIN, GALVANISED AND ENAMELLED.

GUN-METAL STEAM GLAND COCKS, WATER GAUGES, &c.

S H O R T R I D G E, H O W E L L, A N D C O., H A R T F O R D S T E E L WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS METAL PLATES for BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING THE STRENGTH OF STEEL with the MALLEABILITY of COPPER, RUSSELL AND HOWELL'S PATENT CAST STEEL TUBES. McCONNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to SHORTRIDGE, HOWELL, and CO., Hartford Steel Works, Sheffield; or McCONNELL and CO., 12, Haymarket, London.

C O R N I S H B O R E R S T E E L—Upwards of ONE HUNDRED AND SIXTY MINES are SUPPLIED with this STEEL, and the DEMAND for it is RAPIDLY INCREASING.—For terms, apply to R. MUSSET and CO., Forest Steel Works, near Coleford, Gloucestershire.

C Y A N O G E N S T E E L, C A S T S T E E L, S H E A R S T E E L, a n d I M P R O V E D F O R E S T L B L I S T E R S T E E L supplied to order by ROBERT MUSSET and CO., Forest Steel Works, near Coleford, Gloucestershire.

Address to the Works, Coleford.

C O A L S.—GEORGE J. COCKERELL AND CO., Coal Merchants to Her Majesty. Cash. 26s. per ton. Best coals only.

Central Office, 13, Cornhill, E.C.

G E O R G E J. C O C K E R E L L A N D C O., Eaton Wharf, Grosvenor Canal, and Office, 1a, Lower Belgrave-place, Pimlico, S.W.

G E O R G E J. C O C K E R E L L A N D C O., Purfleet Wharf, Earl-street, Blackfriars, E.C.

G E O R G E J. C O C K E R E L L A N D C O. Sunderland Wharf, Peckham Canal, S.E.

T O C O L L I E R Y P R O P R I E T O R S.—IMPROVED SELF ACTING TIPPLERS and SCREENS, for LOADING COALS at the PITS with dispatch, and ENTIRELY PREVENTING BREAKAGE. Manufactured by WILLIAMS and MOYLE, Egerton-street Foundry, Chester, where models and testimoniess may be seen, and every information obtained. Prices moderate. Delivered at any railway station.

TO COAL OWNERS AND COKE BURNERS.

M A C K W O R T H ' S P A T E N T C O A L W A S H E R, OR PURIFIER.—This MACHINE will EXTRACT the SHALE and ALL HEAVY IMPURITIES from SMALL COAL at a COST of TWOPENNY PER TON.

—For particulars and references, apply to the makers, A. and T. FOX, Temple-gate-Works, Bristol; or to Mr. JOS. RIDER, Basinghall-street, Leeds.

M I N E R S ' D I A L S, L E V E L S, A N E M O M E T E R S, PIT BAROMETERS, &c.

APPOINTED MAKER OF HEDLEY'S DIAL.

BIRAM'S PATENT ANEMOMETER, 4 in., £2 10s.; 6 in., £3 2s.; and 12 in., £4 4s.

JOHN DAVIS, DERBY, MANUFACTURER OF MINING INSTRUMENTS.

Price list on application.

P A T E N T S A F E T Y F U S E.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH DAVEY, and PRYOR who beg to inform Merchants, Mine Agents, Railway

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.	
4000 Bedford United (copper), Tavistock	2 6 8.	5 1/2	4 1/2	5 1/2	12 8 6.	1 6—Sept. 1861	
240 Boscean (tin), St. Just	20 10 0.	60	10	1 5—Sept.	1861		
200 Botallack (tin, copper), St. Just	91 5 0.	240	0	443 5 0.	2 10 0—Feb.	1860	
1000 Carn Brea (copper, tin), Illogan	15 0 0.	80	0	77 1/2 82 1/2	269 10 0.	2 0—Feb.	1861
2048 Carnyorth (tin), St. Just	3 10 0.	80	0	19 6.	0 2 0—Sept.	1860	
200 Cen Cwm Brynwo (lead), Cardigansh.	35 0 0.	38	0	9 0 0.	4 0 0—April	1861	
50000 Connors (copper, sulphur) [L. £11.]	1 0 0.	328.	0	31s.	0	0 9 0.	0 9—July, 1860
2450 Cook's Kitchen (copper), Illogan	17 0 9.	29	0	13 0.	0 5 0—Sept.	1861	
12000 Copper Miners of England	25 0 0.	25	0	7 1/2 percent.	—	Half-yrly.	
35000 Ditto ditto (stock)	100 0 0.	24	0	1 percent.	—	Half-yrly.	
1085 Craddock Moor (copper), St. Cleer*	8 0 0.	23	0	24 26	5 18 0.	0 5 0—Sept.	1861
867 Cwm Eris (lead) Cardigansh.	7 10 0.	21	0	6 3 0.	0 15 0—Oct.	1861	
128 Cwmyntswith (lead), Cardigansh.*	60 0 0.	200	0	227 10 0.	5 0 0—May, 1861		
280 Derwent Mines (sl., lead), Durham	360 0 0.	180	0	142 0.	0 5 0—June	1861	
1024 Devon Gt. Com. (cop.), Tavistock* [S.E.]	30 0 0.	370	0	365 27 5	767 0 0.	0 7 0—Sept.	1861
358 Dolcoath (copper, tin), Camborne*	128 17 6.	550	550	640 10 0.	7 0 0—Oct.	1861	
3000 Drymow (lead), Wales	12 6 6.	94.	0	2 6 0.	2 6—Sept.	1861	
6144 East Cardon (copper), St. Cleer [S.E.]	3 14 6.	26 1/2	27 1/2	1 10 0.	0 12 6—Oct.	1861	
5000 East Durran (lead), Cardigansh.*	32 0 0.	45	0	77 10 0.	1 0 0—Aug.	1861	
2048 East Welsh Lovell (tin), Wendron	2 10 0.	—	0	8 0 0.	5 0 0—July, 1859		
1400 Elyan Mining Co. (lead), Derbyshire	5 0 0.	—	0	20 3 4.	0 10 0—May, 1861		
4940 Fowey Consols (copper), Twardreath	4 0 0.	5	0	41 9 3.	0 2 6—June	1860	
2800 Foxdale (id.), Devon	3 18 6.	43.	0	64 12 7.	1 12 0—Sept.	1861	
6000 Frank Mills (lead), Devon	14 6.	47.	43 1/2	0 14 0.	0 3 0—Sept.	1861	
1788 Great Wheal Fortune, Breage	18 6 0.	125.	11 12	7 13 0.	0 5 0—Feb.	1861	
988 Great Wh. Vor (tin, ep.), Helston [S.E.]	40 0 0.	54.	44 1/2	1 0 0.	0 10 0—July, 1861		
1024 Herodotus (tin), Liskeard [S.E.]	8 10 0.	34	32 1/2	16 5 0.	1 15 0—Oct.	1861	
1000 Hibernal Min. Company	99 6 2.	—	27 1/2	7 10 0.	0 15 0—Sept.	1861	
160 Levant (copper, tin), St. Just	2 10 0.	95	0	1001 0 0.	5 0 0—May, 1860		
400 Liburne (lead), Cardigansh., Wales	18 15 0.	110	0	377 0 0.	2 0 0—Oct.	1861	
9000 Marke Valley (copper), Caradon	4 10 6.	97.	91 1/2 10	1 0 0.	0 5 0—Oct.	1861	
5000 Mendip Hills (lead) [L. £1.]	3 15 0.	13.	0	2 1 0.	0 2 0—May, 1860		
18000 Miners Mining Co. (tin), (L. id.), Wrexham	25 6 0.	170	0	75 0.	0 9 4—Aug.	1861	
20000 Mining Co. of Ireland (cop., lead, coal)	7 0 0.	14 1/2	14 1/2	14 1/2 11 0.	7 0 0—June, 1861		
640 Mount Pleasant, Mold	4 0 0.	25	0	15 5 7.	0 10 0—Oct.	1861	
6000 New Birch Tor and Vitifer Consols	1 6 6.	2	0	0 3 6.	0 1 0—Sept.	1861	
6000 North Down (copper) Redruth	2 3 4.	43 1/2	43 1/2	0 2 6 0.	2 6—Aug.	1861	
1356 North Grambler, Redruth	2 7 6.	6.	0	0 10 0.	0 10 0—Mar.	1861	
6000 North Great Work, Breage	1 3 0.	41.	0	0 2 0.	0 2 0—May, 1860		
5000 Orsford (lead), Flintshire	0 0 8.	14.	0	0 6 10.	0 4 0—Sept.	1861	
6400 Par Consols (cop.), St. Blazey [S.E.]	1 2 6.	9.	7 1/2 8	36 4 6.	0 5 0—July, 1861		
200 Parrys Mines (copper), Anglesey [L. id.]	50 0 0.	—	—	12 10 0.	2 0 0—Sept.	1861	
200 Pheanix (copper, tin), Linkinhorne	100 0 0.	435	0	449 10 0.	55 0 0—May, 1861		
1772 Polberro (tin), St. Agnes	5 0 0.	—	—	6 9 6.	0 15 0—April, 1861		
1120 Providence (tin), Umy Lelant [S.E.]	10 6 7.	42	42 44	60 15 0.	1 0 0—Aug.	1861	
16 Rhosneigr	50 0 0.	—	—	1250 0 0.	100 0—Quarterly.		
512 South Cardon (cop.), St. Cleer [S.E.]	1 8 0.	305	295 305	356 0 0.	5 0 0—Sept.	1861	
512 South Tolgas (cop.), Redruth, Cornwall* [L. £1.]	8 0 0.	40.	102 10 0.	1 0 0—April, 1861			
496 South Wheal Frances, Illogan	18 18 9.	112 1/2	110 112	356 0 0.	5 0 0—Sept.	1861	
280 Spears Moor (tin, copper), St. Just	31 17 9.	45.	—	9 15 0.	1 0 0—June, 1861		
91 St. Ives Consols (tin), St. Ives	8 0 0.	35	30 35	484 0 0.	0 5 0—May, 1861		
9600 Tannar Con. (sl., id.), Brecon [S.E.]	4 10 0.	14.	11 1/2	5 6 0.	0 2 6—Jan.	1861	
6000 Tincoff (tin, ep.), Pool, Illogan [S.E.]	9 0 0.	63.	63 1/2 63	10 13 6.	0 5 0—Oct.	1861	
572 Trelyon Consols (tin), St. Ives	11 10 0.	16.	—	0 12 6.	0 3 0—Mar.	1860	
200 Trumpet Consols (tin), near Helston	57 10 0.	100	—	52 0.	0 2 0—May, 1861		
1024 Wendron Consols (tin), Wendron	11 13 10.	13.	16.	8 15 0.	1 0 0—Jan.	1861	
6000 West Basset (copper), Illogan [S.E.]	1 10 0.	16.	14 15	22 0.	0 0 0—May, 1861		
6000 West Burton (Gill) (lead), Yorkshire	60 0 0.	—	—	14 10 0.	3 0 0—June	1861	
1024 West Cardon (cop.), Liskeard [S.E.]	5 0 0.	39.	37 39	98 11 8.	0 10 0—Sept.	1861	
256 West Damson (copper), Gwennap	37 0 0.	60.	—	2400 10 0.	5 0 0—Feb.	1861	
6000 West Fowey Consols (tin and copper)	7 10 0.	45.	—	45 0 0.	1 0 0—May, 1860		
400 W. Wh. Seton (cop.), Camborne [S.E.]	47 10 0.	300	295 305	322 0.	0 7 0—Oct.	1861	
512 Wheal Bassett (copper), Illogan [S.E.]	5 2 6.	85.	80 85	574 10 0.	2 0 0—Sept.	1861	
256 Wheal Buller (cop.), Redruth* [S.E.]	5 0 0.	80.	75 80	929 0 0.	2 0 0—May, 1861		
2900 Wh. Clifford Amalgamated (cop.), Gwennap	30 0 0.	30.	27 30	26 0.	0 10 0—Oct.	1861	
2000 Wheel Falmouth and Spurries	2 5 0.	8.	—	0 10 0.	0 10 0—Feb.	1861	
128 Wheel Friendship (copper), Devon	60 0 0.	90.	—	2400 10 0.	5 0 0—Feb.	1861	
512 Wheel Jane (silver-lead), Kea	3 10 0.	18.	—	11 10 0.	1 0 0—Oct.	1861	
924 Wheel Kitty (tin), Umy Lelant [S.E.]	1 7 2.	7.	—	8 0 0.	0 10 0—Sept.	1860	
4800 Wheel Ludcott (lead), St. Ives	2 10 8.	24.	2 24	11 12 0.	0 4 0—Oct.	1861	
896 Wh. Margaret (tin), Umy Lel. [S.E.]	9 17 6.	41.	38 40	69 0 0.	1 0 0—Aug.	1861	
100 Wh. Mary (tin), Lelant	36 2 6.	44.	—	280 5 0.	7 0 0—June, 1861		
1024 Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0.	14.	18 1/2 14	54 7 6.	0 10 0—Sept.	1861	
50 Wh. Mary Owles, St. Just, Cornwall	70 0 0.	300.	—	280 13 0.	5 0 0—Aug.	1861	
2000 Wicklow (copper) [L. id.], Wicklow	5 0 0.	52 1/2.	52	43 17 6.	2 0 0—Oct.	1861	

* Dividends paid every two months. + Dividends paid every three months.

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
700 Aberdovey (silver-lead), Merioneth	1 10 0.	30	0	0 10 0.	0 10 0—Mar.	1859
5120 Alfred Consols (cop.), Phillack [S.E.]	3 3 6.	1 1/2.	16s. 18s.	20 3 0.	0 2 6—April.	1859
1624 Alleswidden (tin), St. Just	11 15 0.	12.	—	12 5 0.	0 8 0—Jan.	1854
1200 Brightside & Froggatt Grove, Derbysh.	3 0 0.	3.	—	3 0 0.	0 3—April.	1856
200 Brynford Hall (lead), Flintshire	18 10 0.	25.	—	14 0 0.	0 2 10 0—Oct.	1860
2000 Central Minera (lead) [L. £5.]	0 15 0.	54.	—	0 4 0.	0 4—Sept.	1859
6000 Charlotte United, Perranuthnoe	2 12 3 2.	14.	1 1/2.	0 13 0.	0 1 0—Sept.	1859
2000 Collacombe (copper), Lamerton	5 5 0.	12.	—	3 5 0.	0 8 0—Dec.	1857
256 Condurrow (cop., tin), Camborne	20 0 0.	100.	75 80	85 0.	0 2 0—June, 1857	
256 Copper Hill (copper), Redruth	48 0.	0				